WORLD BANK GROUP

GEORGIA: KEEPING THE REFORM MOMENTUM

Systematic Country Diagnostic Update

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Acknowledgments

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Abbreviations and Acronyms

AQMPs	Air Quality Management Plans
CAIT	Climate Analysis Indicators Tool, interactive climate data platform of the World Resources Institute
CBT	Climate Budget Tagging
CCKP	Climate Change Knowledge Portal
CEM	Country Economic Memorandum
CO2	Carbon Dioxide
COVID-19	Coronavirus Disease 2019
CSO	Civil Society Organization
DRM	Disaster Risk Management
ECA	Europe and Central Asia
EE	Energy Efficiency
EEA	European Environment Agency
ESCO	Energy Service Company
EU	European Union
EU IED	Industrial Emissions Directive of the EU
FAO	Food and Agriculture Organization
Geostat	National Statistics Office of Georgia
GDP	Gross Domestic Product
GEL	Georgian Lari
GNI	Gross National Income
GHG	Greenhouse Gas
GRID RISE	Green Resilient and Inclusive Development benchmarking framework: Resilience, Inclusion, Sustainability, Efficiency
GVA	Gross Value Added
GVC	Global Value Chain
HCI	Human Capital Index
HLO	High-level Outcomes
I&D	Irrigation and Drainage
ICT	Information and Communication Technologies
IDP	Internally Displaced People
IEA	International Energy Agency
IMF	International Monetary Fund
LPI	Logistics Performance Index

LGBT+	Lesbian, Gay, Bisexual, Transgender/Transsexual Plus
LTGM	Long-Term Growth Model
LULUCF	Land Use, Land Use Change and Forestry
MEPA	Ministry of Environmental Protection and Agriculture of Georgia
NC	National Communication to the UNFCCC
NCD	Non-Communicable Disease
ND GAIN	Notre Dame Global Adaptation Initiative and Country Index
NDC	Nationally Determined Contributions
NEET	Not in Education, Employment, or Training
NIMD	Netherlands Institute for Multiparty Democracy
PEFA	Public Expenditure and Financial Accountability
PISA	Program for International Student Assessment
PHC	Primary Health Care
PM2.5	Particulate matter 2.5
PPP	Purchasing Power Parity
RE	Renewable Energy
SCD	Systematic Country Diagnostic
SMEs	Small and Medium Enterprises
SOEs	State-Owned Enterprises
TFP	Total Factor Productivity
UHCP	Universal Health Care Program
UMIC	Upper-middle-income country
UNDP	United Nations Development Programme
US$	United States Dollar
WHO	World Health Organization
WITS	World Integrated Trade Solution

EXECUTIVE SUMMARY

Since the release of the first Georgia Systematic Country Diagnostic (SCD) in 2018 Georgia has regained upper middle-income status and has shown resilience amid a rapidly changing external environment. Externally, Georgia has been exposed to several shocks, including the coronavirus disease 2019 (COVID-19 crisis), which caused Georgia to experience one of the sharpest drops in gross domestic product (GDP) in the Europe and Central Asia (ECA) region, and Russia's invasion of Ukraine. Georgia has shown remarkable resilience to shocks and growth has rebounded strongly in 2021 and 2022, yet the risks and uncertainty remain extraordinarily high. This second-generation SCD Update revisits Georgia's key development constraints considering recent developments and rapidly changing megatrends, as well as novel data and analysis. While most of the priorities identified in the 2018 SCD remain relevant, some of them have been updated and refocused to better address current challenges, as further emphasis on building resilience and greening economic activity is warranted.

Economic growth has remained robust despite shocks, driven by capital accumulation. Between 2016-22, Georgia maintained an average per capita growth rate (4.5 percent) comparable to that of peers and above the regional average. As the COVID-19 pandemic hit, Georgia, reliant on tourism, experienced one of the largest GDP drops in ECA. In 2021, the economy rebounded strongly (10.5 percent growth), driven by the recovery of consumption and exports, and GDP surpassed its 2019 level. Growth remained in double digits in 2022, supported by large inflows of money transfers and people in the aftermath of Russia's invasion of Ukraine, as well as a strong tourism sector performance. During the past decade, growth in Georgia has been driven by capital accumulation, while total factor productivity has been oscillating, the contribution of human capital has been modest, and the contribution of labor has declined. Spatial disparities remain significant, and there has been increased concentration of economic activity in Tbilisi and Batumi.

Consistent with the slowdown in the labor contribution to growth, poverty reduction has slowed in recent years, as income from wages has decreased. Poverty incidence declined rapidly during the first half of the past decade: from 37.3 percent of the population in 2010 to 21.6 percent in 2015 (according to the national poverty line). From there, reduction has been slower (incidence reached 15.6 percent in 2022), as it becomes more difficult than in earlier development stages to get people out of poverty. The shared prosperity premium has been falling, as the wage employment contribution to income growth declined during the second part of the past decade and the pandemic. Income from selling agriculture products, which was strong during the first half of the past decade, has also dwindled in recent years. Meanwhile, the contribution of social assistance and social protection to household income growth was key to shield households during the pandemic. Since income growth for non-poor households has also been affected, inequality has declined in recent years, although it remains higher than in peer countries. Internally displaced people (IDPs), ethnic minorities, persons with disabilities, and women remain more prone to poverty, compared to other groups. Overall, growth has remained pro-poor, but the pace at which people are coming out of poverty has slowed.

Georgia has struggled to create quality jobs, and labor force participation has declined. The share of employment in agriculture declined from 48 percent in 2010 to 40 percent in 2021, but it remains the second highest in ECA. While there has been some structural transformation, its potential has not been fully realized: the value-added per worker in manufacturing and services remains about seven times higher than in agriculture, indicating further scope for sectoral labor shifts. While the share of jobs with a contract has increased over the past decade, well-paid high-quality jobs remain scanty. Georgia has traditionally suffered from chronic unemployment, and the share of NEET among the youth and women is particularly high. Despite their higher level of educational attainment, women work for low productivity and low-paid sectors due to sector and occupation selection biases, social norms, and a lack of affordable care options. Due to lack of opportunities, many Georgians, mostly people of working age, have opted for migrating, which is further reducing the size of the labor force.

Constraints to firm productivity and growth limit the ability of enterprises to create good jobs. Firm-level analysis reveals that, while there has been capital deepening and labor productivity has improved, total factor productivity has been stagnant across sectors (except for construction). Access to finance has improved significantly, but largely from banks and for basic products, and it continues to be cited by firms as one of the top obstacles, in particular for SMEs. While competitive pressures have increased, they remain weak in some sectors. In addition to economy-wide constraints, low firm capabilities in areas such as digitalization, innovation and technology adoption, and managerial quality, affect productivity growth. Georgian firms are limited as well by a small domestic market. While Georgia has been able to diversify its export markets and products during the past decade, its export basket remains unsophisticated, and integration into global value chains (GVCs) continues to be elusive. This is partially explained by Georgia's subpar performance in logistics and connectivity, although some recent improvements are to be noted.

Georgia has made significant strides in access to social services, but human capital formation is undermined by quality constraints, particularly in education. A child born in Georgia will be 57 percent as productive as she could be if she enjoyed complete education and full health. While Georgia scores by the ECA average in terms of survival to age 5 and expected years of schooling, it lags in harmonized test scores and in adult survival. A child who starts school at age 4 can expect to complete 12.9 years of school by her 18th birthday, which is better than many comparator countries. However, when factoring in what children learn, the number of adjusted years of school amounts to only 8.3 years, as Georgia scores at the bottom of the region in international tests. Lagging pre-primary enrollment, poorly prepared teachers, and inequities in access to quality education are among the factors likely hindering performance. Meanwhile, entrepreneurs continue to point to existing skills mismatches, as they look for higher order cognitive skills and socio emotional skills, as well as digital skills, which are not always provided by the education system. In the Health sector, performance has been much more positive, as the implementation of health care reform has resulted in substantial reductions in out-of-pocket spending; some challenges remain in balancing the provision of health care services, since most of the funds are spent on costly inpatient services, while primary care services remain underfunded.

In terms of sustainability, Georgia has so far been unable to decouple carbon emissions from economic growth. After the initial drastic decline following the split from the Soviet Union, greenhouse gas (GHG) emissions have continued to rise since 2000 alongside real GDP growth. The transport, waste, and industry sectors are the largest emitters in Georgia. First, the transportation sector, the largest source of carbon emissions in Georgia, currently lacks the plans and incentives to green the sector, and deficiencies in the railway sector make it even more difficult to decarbonize. Second, emissions from waste and electricity and heat have remained stable over the last two decades, but emissions from construction and from manufacturing and industrial processes have been on the rise. Within manufacturing, there are large differences in energy use at the firm level, which offers significant opportunities to reduce emissions through improved energy efficiency. Finally, the dominance of fossil fuels in Georgia's energy supply has increased during the past two decades, while non-hydro renewable sources remain underutilized. Regulatory uncertainty and insufficient grid access have hampered renewable energy development. To address these obstacles, the authorities have adopted a support scheme that integrates renewable power into a new competitive day ahead wholesale electricity market, awards subsidies competitively, and is expected to better balance risks between the government and private investors.

Georgia has experienced natural capital degradation, partly driven by lack of sustainable agricultural practices and inefficient land use. Unsustainable water use, grazing practices, and agricultural practices—including excessive pesticide and fertilizer use and intensive tilling—have caused continued degradation. Meanwhile, Georgia's agricultural yields remain significantly below the global average for nearly all major crops. Fragmentation of land plots, gaps in land registration, lack of adequate pricing, and limited knowledge and use of modern technologies hinder optimal and sustainable land use. Meanwhile, there are multiple deficiencies in water management. The current irrigation tariff has remained unchanged since 2010 and does not allow for cost recovery by the state-owned water utility. This constrains needed investments on irrigation schemes, the majority of which are in poor state, and contributes to spillage.

The report discusses as well other aspects of resilience, in terms of response to shocks and overall governance. Georgia has a sound macroeconomic framework that can help mitigate shocks, but dollarization exacerbates exchange rate associated risks. In addition, significant fiscal risks stem from State-Owned Enterprises (SOEs), as SOE governance remains weak and some SOEs are in poor financial shape and often require subsidies and loans from the state budget. Shortcomings in disaster and climate risk monitoring and management and the lack of a holistic disaster risk financing framework also hinder resilience building efforts. To address these weaknesses, the authorities have been increasing the quality of the fiscal risk statement and adopted in 2022 a SOE Reform Strategy (2023-26). On the governance side, Georgia has made progress in terms of regulatory quality, government effectiveness, and control of corruption, where it is ahead of the regional average. On the other hand, however, the judiciary suffers from unreasonable delays and insufficient accountability, and enforcement of regulation is perceived to be uneven, which impacts on reform implementation and on the business climate.

Going forward, this Systematic Country Diagnostic Update identifies ten policy objectives and four High-Level Outcomes (HLOs). The ten policy objectives respond to the challenges identified above and have been prioritized using stakeholder consultations and impact on the twin goals as filters. Strengthening the quality of education and improving land use as well as adaptation to climate change are identified as top priority policy objectives. High-level priority policy objectives include reducing labor market frictions and increasing labor force participation, facilitating access to finance, digitalization, and innovation, investing in energy efficiency, and ensuring enforcement and predictability of laws and regulation. The ten policy objectives contribute to four High-Level-Outcomes (HLOs) necessary to attain poverty reduction and shared prosperity in Georgia going forward. These HLOs are (i) enhanced creation of good quality jobs by boosting productivity; (ii) improved and more equitable human capital; (iii) enhanced readiness to climate change and the green transition; and (iv) improved resilience to shocks.

The green transition and the EU accession process offer a window of opportunity to attain growth as well as a more inclusive and sustainable development in the years to come. A robust growth performance and a well-deserved reputation for economic reforms notwithstanding, Georgia faces internal headwinds (population aging) and external megatrends (prominence of geopolitics, digitalization, climate change) that will alter its development path. While at present Georgian firms lag their peers in adopting green and digital technologies, rapid cost declines, particularly for low-carbon technologies, offer new opportunities for technological upgrading or 'leapfrogging', a golden chance given Georgia's proximity to the EU. Furthermore, the EU approximation and accession process offers unique prospects to boost the reform momentum and get ready to become part of a club that has succeeded in bringing convergence and prosperity to its members.

In conclusion, Georgia has a solid foundation and needs to further step up the reform momentum irrespective of uncertainty. Since 2018, the country went through unprecedented challenges together with the whole world, showing great resilience and strong economic recovery, supported by sound macroeconomic management and a solid institutional foundation, both resulting from

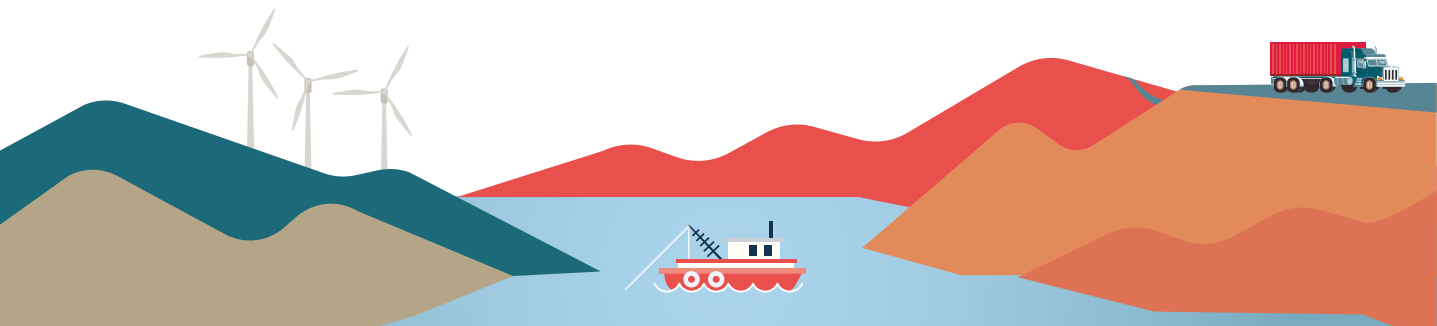
previous reforms. However, this may not be sufficient going forward, since more quality jobs are needed, growth is expected to slow down unless productivity is boosted, and the country faces new challenges such as those derived from climate change. Thus, while the motto of the 2018 SCD was “From reformer to performer”, this report argues that there is a need to both double down on the pursuit of new reforms and on ensuring adequate implementation of existing regulation. The policy objectives and reforms identified in this SCD can help Georgia sustain strong growth while creating better quality jobs and opportunities for all, enjoying a greener development, and boosting resilience to shocks.

1 MOTIVATION

Since the preparation of the first-generation Systematic Country Diagnostic (SCD) for Georgia, external conditions for the country have evolved. The first SCD, titled "Georgia: from Reformer to Performer," was finalized in 2018, with 2015 being the latest year of some of the data used. While no major shifts have taken place on the domestic front since then, in 2022 the European Union (EU) confirmed Georgia's "perspective" to become a member of the European Union, requiring that several prerequisites are fulfilled for the country to be granted the candidate status.[1] Georgia outperforms regional peers in several governance and reform dimensions already, albeit progress has been uneven. Externally, Georgia has been exposed to several shocks, including the coronavirus disease 2019 (COVID-19 crisis), which caused Georgia to experience one of the sharpest drops in gross domestic product (GDP) in the Europe and Central Asia (ECA) region, and Russia's invasion of Ukraine. Overall, Georgia has shown resilience to shocks, experiencing a fast V-shaped recovery. However, uncertainty remains extraordinarily high.

The 2018 SCD provided an in-depth diagnostic of Georgia's economic growth and inclusion challenges and priorities that remains largely valid today, albeit it did not emphasize a risk management dimension which has become more relevant in recent years. The central growth story in the 2018 SCD is encapsulated in the following passage: "Georgia's economy does not have a growth problem per se, but it has accumulated a productivity deficit and depends too much on a small domestic market that is inherently constrained." The top growth priority identified in the 2018 SCD was unlocking productivity growth by accelerating Georgia's integration into global value chains, reducing connectivity constraints, and upgrading skills. The report also stressed the need to ensure that growth remained inclusive and sustainable as well as to address economic dualism by increasing equality of opportunities, modernizing agriculture, and leveraging the potential of the tourism sector. While these priorities continue to be highly relevant, they need some updating

1 The prerequisites include the need to address political polarization and strengthen the independence and transparency of the judiciary. See European Commission, 2022. "Opinion on the EU membership application by Georgia." June 17, 2022. Brussels. https://ec.europa.eu/commission/presscorner/detail/en/qanda_22_3800



to reflect recent developments and increased uncertainty, as well as new analytical work, such as the 2022 Country Economic Memorandum (CEM).[2]

While the 2018 SCD identified preserving the environment as a priority for inclusive growth, it did not sufficiently cover other aspects such as climate mitigation and adaptation. It highlighted three areas of policy reform needs: investing in environment quality monitoring, developing frameworks for the sustainable use of forest and mining resources, and promoting integrated water basin planning in the context of hydropower development. It also discussed the need for a more systematic assessment of environmental and social impacts. While those areas remain relevant, they do not reflect the full breadth of the policy reforms needed to overcome key constraints in building resilience and green growth.

This second-generation SCD Update aims to identify the key development constraints that Georgia is facing against a backdrop of rapidly changing megatrends, which require an increased focus on resilience. Some of these trends include the increasing prominence of geopolitics and rising uncertainty, digitalization, and climate change and energy transition. This SCD Update revisits the priorities in the 2018 SCD in light of developments since then. It finds that most of the priorities remain pertinent, although some of them have been updated and refocused to better address current challenges (Figure 1). For example, Georgia has made very significant progress since 2018 in terms of macroeconomic management and financial sector supervision while, to build resilience, there is a pressing need to focus on fiscal risks stemming from SOEs, pandemics, and disasters and climate shocks. The 2018 SCD already argued about the need to unlock productivity growth, but firm-level productivity data was not available at the time; novel analysis using a firm-level dataset shows that total factor productivity is stagnant across sectors, pointing to constraints in technology adoption, managerial capabilities, and innovation. The need to modernize agriculture is now presented in conjunction with needed improvements in water management and access to land. This SCD Update features new priorities such as to increase labor force participation; to further boost access to finance, digitalization, and innovation; to invest in energy efficiency; to support renewable energy development; and to improve the enforcement and predictability of laws and regulation.

This report has been informed by analysis, team discussions, and stakeholder consultations. This SCD Update has been prepared drawing from existing and new analytics, World Bank country team discussions, and two rounds of consultations (January and May 2023) with government officials and representatives of the private sector, development partners, civil society organizations, and academia (see Annex 2. Results from consultations with stakeholders). The remainder of this report is organized as follows: section II assesses the main challenges for Georgia to enjoy strong growth as well as inclusive and sustainable development; section III presents the prioritization of policy responses and the proposed High-Level Outcomes (HLOs). While the report focuses on highlighting challenges, very significant progress has taken place over the past five years across the board (see Box 1).

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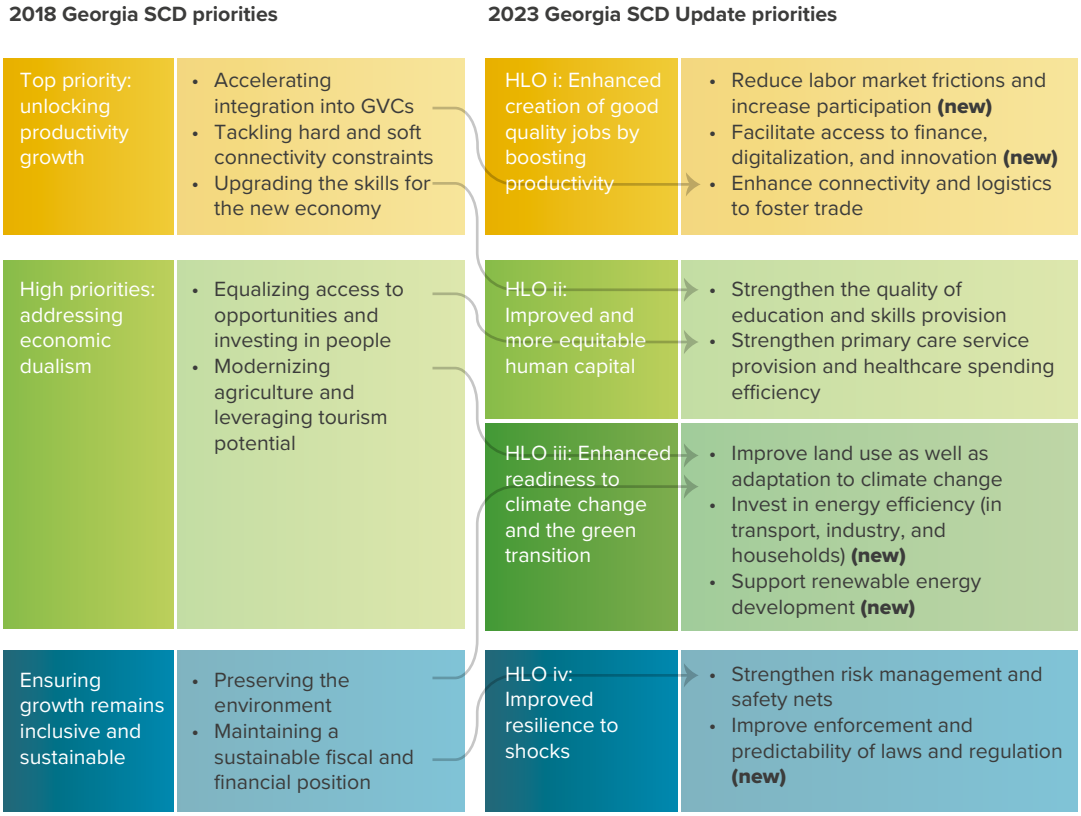
2 The CEM highlights four broad priority areas for policy reform: (i) facilitating the structural and spatial transformation, (ii) unlocking firm productivity growth, (iii) leveraging external opportunities, and (iv) developing and making the most of human capital.

Figure 1. Some of the priorities in the first generation SCD have evolved in nature, while new priorities have emerged

Comparison of the priorities identified in the 2018 Georgia SCD and in this Update



Source: World Bank staff.

BOX 1. PROGRESS AND REFORMS SINCE THE 2018 SCD

Georgia has experienced positive developments in several aspects relating to growth and macroeconomic and public financial management. Georgia has a track record of sound macroeconomic management, most recently tested during the COVID-19 pandemic and the initial shock following Russia's invasion of Ukraine. Since 2016, Georgia has been successful in increasing domestic savings (notwithstanding the COVID-19 slump), and trade in goods and services rose above 100 percent of GDP, reaching for the first time the expected level given the country's income. Insolvency reform and a new entrepreneur's law have helped further cement a sound business environment. Several monetary and prudential measures have been taken to reduce dollarization in the financial system, and the financial sector legal and regulatory framework has improved considerably (further detail in Box 3). Authorities have adopted a new Law on Procurement and a new Public Investment Management framework. They have also implemented numerous improvements in public finance management, which has resulted in Georgia securing the top marks among all the countries assessed by the PEFA methodology.

BOX 1. CONTINUE

On the inclusion side, labor code reforms and labor policy strategies implemented by the Government since the last SCD aim to improve labor rights and increase labor force participation. In 2020, the Government adopted the Law on Labor Inspection Services and extensive amendments to the Labor Code, which include provisions on discrimination and equal pay, overtime hours, night work, part-time work, and collective redundancy, among others. These amendments extend the mandate of the inspectorate, which was previously limited to occupational safety and health issues, to include labor rights and conditions (ILO, 2020). In 2019, the authorities had adopted the Pensions Law, establishing a defined contribution system for those legally employed people under 40 years of age. To ensure lifelong learning opportunities, the authorities have started to develop the Adult Education System, while making vocational training and re-training programs formally part of the education system and establishing a new Skills Agency. Finally, Georgia continues to successfully implement the Universal Healthcare reform.

The green agenda has gained traction in recent years, as Georgia strives to become an advanced economy and to improve the sustainability of growth. Georgia's 2030 Climate Change Strategy and the 2023 Action Plan identify sectoral goals and objectives and define concrete actions to attain them. Georgia's 2021 Nationally Determined Contribution (NDC) update slightly increased the ambition of carbon reduction goals, with an unconditional limiting target of 35 percent below 1990 levels of domestic greenhouse gas emissions by 2030 (50-57 percent conditional on support).[3] It also identified the most urgent adaptation measures to build resilience, enhance critical natural assets, and protect ecosystems and people's health. In 2020, a Climate Change Council that undertakes high-level decisions on Georgia's climate change policy and coordinates implementation was created. A Climate Finance Working Group and a Climate Technologies Coordination Group were established under the Council in 2023.

Progress has been made on policies to improve environmental sustainability, although implementation is delayed. Recent developments include commencing the designation of Georgian sites under the Emerald Network of Protected Areas in 2017 to preserve Europe's critical habitats and adopting the Law on Forest Code in 2020, which sets the principles for sustainable forest management. Georgia has also rolled out the national systematic land registration program. Furthermore, 24 municipalities in Georgia have joined the Covenant of Mayors, pledging to decrease CO2 and other related emissions by up to 40 percent by 2030 and up to 80 percent by 2050. Recent policy progress on air quality has included the adoption in 2020 of amendments to the Improved Ambient Air Quality Monitoring Law, to align air quality management with EU directives. Air Quality Management Plans (AQMPs) for two large cities have been adopted, but the development of zonal AQMPs is still underway. Important measures to abate pollution from industry and transport have been initiated, including through the adoption of a Law on Industrial emissions and the introduction of Euro 5 emission standards for vehicles.

3 This translates to no peak in emissions by 2030.

2 ASSESSMENT OF MAIN CHALLENGES

Economic Growth and Inclusion

Key Trends

The drivers of a solid growth performance

Georgia sustained a robust growth performance over the past decade. During 2011-22, Georgia's real GDP growth averaged 4.7 percent. Except for the COVID-19 shock, which led to a major economic contraction in 2020, Georgia outperformed comparator countries in terms of per capita GDP growth over the past decade. Between 2016-22, Georgia maintained an average per capita growth rate (4.5 percent) ahead of that of the upper-middle-income countries (UMIC) grouping and the ECA region (Figure 2).[4]

Breaking down Georgia's growth performance into sub-periods highlights both its exposure to and ability to rebound from external shocks. Georgia's growth decelerated in 2015-16 following the deterioration of the regional environment, then rebounded in 2017-19. As the COVID-19 pandemic hit, Georgia, reliant on tourism,[5] experienced one of the largest GDP drops in ECA

4 The following peer countries were identified for the purposes of this Georgia SCD Update. Structural peers: Kosovo, Albania, North Macedonia, Bosnia and Herzegovina, Serbia, and Armenia. Structural peers are the most similar countries to Georgia in terms of the following selected indicators: GDP per capita, share of rural population, natural resource rents (share of GDP), and population. In addition, Croatia and Estonia were selected as Aspirational peers, both countries being EU members with small population. Notably, not all charts included in this report include this set of comparators since data availability is not uniform across variables. The results of a benchmarking exercise are presented in Annex 3.

5 Tourism receipts represented nearly 40 percent of total exports during 2016-19, according to the World Development Indicators.

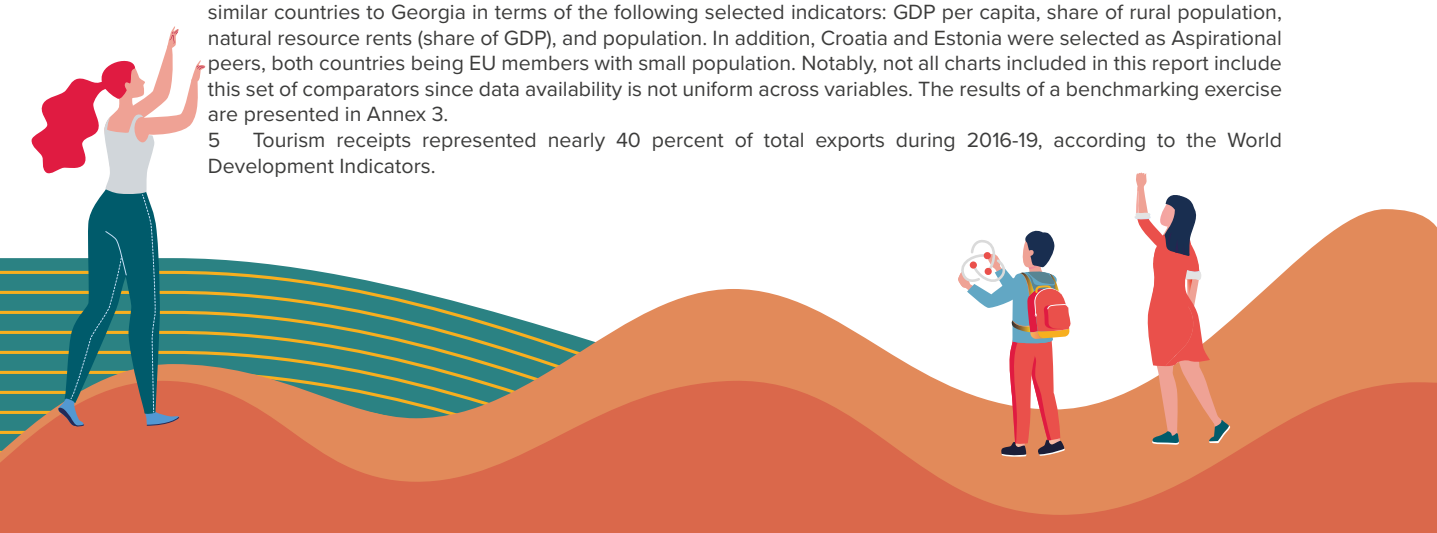
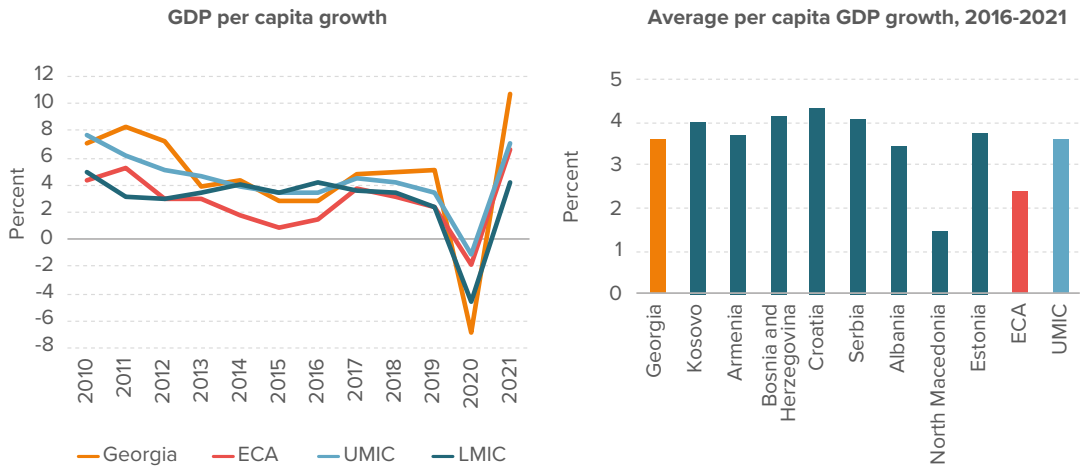


Figure 2. Georgia's per capita growth has outpaced most peers



Source: World Bank staff calculations based on the World Development Indicators.

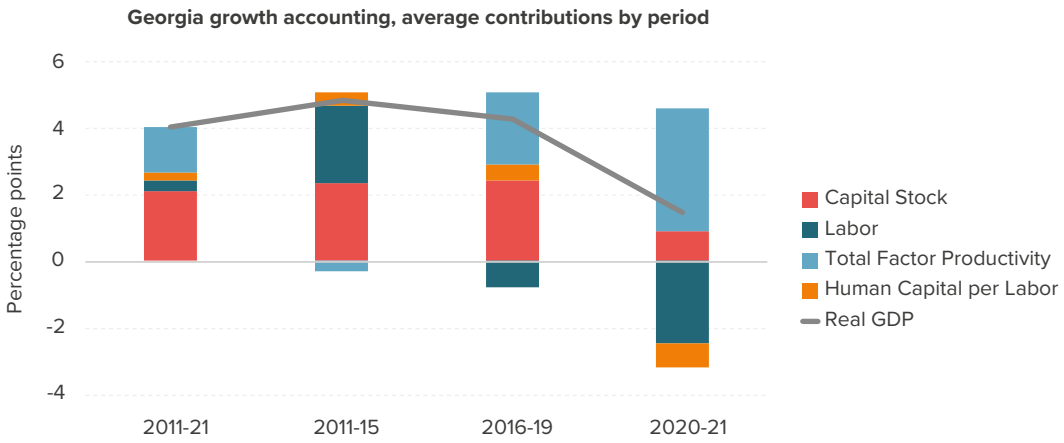
(6.8 percent contraction in 2020). Authorities took advantage of the room created by prudent economic policies to respond to the crisis in a timely manner, mitigating its impacts on livelihoods and firms. In 2021, the economy rebounded strongly (10.5 percent growth), driven by the recovery of consumption and exports, and GDP surpassed its 2019 level. In the aftermath of Russia's invasion of Ukraine, Georgia—like other economies in the South Caucasus and Central Asia—has experienced large inflows of money transfers and people. Partly driven by those inflows as well as strong tourism activity, growth reached 10.1 percent in 2022.

Growth in Georgia has been driven by capital accumulation, while the contribution of labor and human capital has been modest. A growth accounting exercise[6] was conducted to examine the contribution to real GDP growth during 2011-21 from each of the different factors of production—labor, physical capital, and human capital—and TFP (Figure 3 and Annex 1. Growth accounting exercise). This exercise found that, physical capital accumulation explained about half of Georgia's real GDP growth during this period. While investment dropped during the pandemic, 2022 figures suggest a rebound is already underway. The contribution of labor to growth, which was positive during the first half of the past decade, turned negative in recent years, possibly due to population aging and outmigration of young people.[7] Limited labor mobility from less to more productive sectors might be another potential explanation. A declining contribution of labor to growth is consistent with the slowdown in poverty reduction and household wage income discussed below. Meanwhile, the contribution of human capital to growth has been modest. The contribution of

6 Growth accounting results are based on annual GDP, which is a function of capital and human capital adjusted for employment and participation rates. Growth in TFP is calculated as a residual (that is, output growth not explained by growth in capital, adjusted labor, or level of human capital per worker).

7 The contribution to labor considers labor force adjusted for employment and participation rates.

Figure 3. Growth has been driven mostly by capital accumulation



Source: World Bank staff calculations.

TFP to growth, slightly negative during the first half of the decade, increased in recent years and surged during the pandemic. Results must be taken with a pinch of salt, since TFP is a residual that may capture noise, particularly during crisis periods. As discussed later in this report, firm-level data analysis confirms that there has been significant capital deepening over the past decade but TFP growth has been flat across sectors. In sum, while there has been growth, that growth has not been particularly dynamic.

On the supply side, growth in recent years has been driven by services. The contribution to growth of agriculture, manufacturing, and construction, decreased during the second part of the past decade, while that of retail and tourism increased. While Georgia has been able to attract sizable levels of foreign direct investment (8.2 percent of GDP equivalent, on average, during 2016-22), just 8 percent of the inflows have gone into manufacturing, with over a third concentrated in transport, telecommunications, and utilities (IFC 2023). In 2021 and 2022 real estate and construction activities have surged, and foreign investment in financial sector activities, real estate, and arts, entertainment and recreation has boomed.

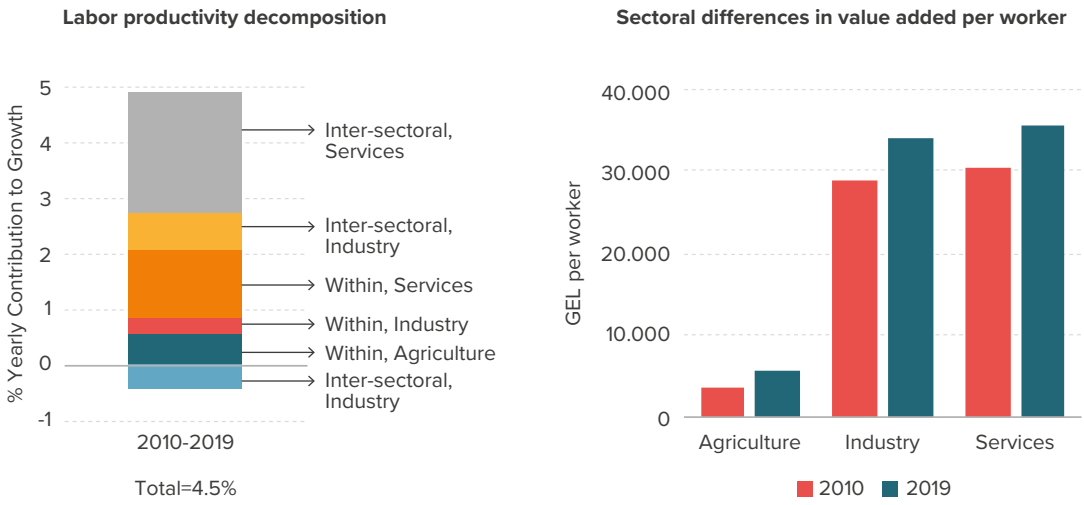
Structural transformation has been broadly productivity-enhancing in Georgia, but its potential has not been fully realized. The share of employment in agriculture declined from 48 percent in 2010 to 40 percent in 2021, while remaining the second highest in ECA.[8] Much of the rural population are small-scale farmers for which agriculture is a part-time activity, providing just about a fourth of their income. Reliance on small-scale agriculture (including for self-insurance) is

8 Figures from ILO modeled estimates. It is worth noting that, following recent methodological revisions, Geostat reports a much lower share of employment in agriculture (18.9 percent in 2021), while the declining trends is consistent under both sources.

partly a result of small land plots and lack of support and know how, which holds back agriculture productivity. Inter-sectoral shifts—namely, labor movements away from agriculture and to services and manufacturing—have been associated with increases in value-added per worker (Figure 4, left panel). A labor productivity decomposition also shows a significant, albeit smaller than cross-sectoral, contribution from within-sector productivity growth. However, the existing differences in sectoral labor productivity are large: value-added per worker in manufacturing and services is about seven times higher than in agriculture, indicating further scope for sectoral labor movements from the latter to the former (Figure 4, right panel).

Limited occupational mobility – associated with slow-growing demand for more skilled jobs – might help explain Georgia's incomplete structural transformation process. Over the past decade, the share of jobs under a contract increased and that of self-employment declined, yet the share of vulnerable workers,[9] at 46.2 percent in 2021, remains much higher than the ECA average (16.2 percent). This suggests that the transition from self-employment jobs to wage-employment jobs has not been fast enough. Low growth in the demand for labor in Georgia's formal sector firms might be hampering inter-sectoral labor mobility, thereby slowing down structural transformation. At the same time, accelerating within-sector labor productivity growth in all sectors, especially manufacturing and agriculture, would likely bring economy-wide benefits.

Figure 4. Large differences in value added per worker indicate there is space for further structural transformation



Source: World Bank (2022a).

9 Vulnerable employment is contributing family workers and own-account workers as a percentage of total employment. Figures are ILO estimates.

Spatial disparities remain significant, accentuated with the concentration of economic activity in Tbilisi and Batumi. Georgia has been among the fastest urbanizing countries in ECA since 2000, with the share of urban population reaching about 60 percent in 2020 (and thus converging with the regional average). Even if spatial disparities are not significantly higher than in other countries, economic activity has concentrated in Tbilisi and Batumi, while some secondary cities are losing population as they are unable to attract businesses. Some rural and mountainous areas in Georgia have limited access to opportunities and basic services such as water, gas, roads, and schools. Meanwhile, Tbilisi is facing challenges such as traffic congestion and pollution, which requires from more sophisticated urban planning.

Improvements and gaps in inclusion and prosperity

Despite robust growth, poverty reduction decelerated in recent years. Gross national income (GNI) per capita (Atlas method) increased from US$3,210 in 2010 to US$4,740 in 2014, then declined in 2015 and 2016 as growth slowed and the currency depreciated; by 2021, GNI per capita reached US$4,700, prior to surging to US$5,620 in 2022.[10] Consistent with those trends, between 2010 and 2015, absolute national poverty rates fell significantly among both urban and rural households. Poverty declined more slowly between 2015 and 2019 (Figure 5, left panel). Poverty increased in 2020 due to the combined effects of the pandemic, associated restrictions on economic activity, and the derived impacts—including on wages—which affected the poor disproportionately. In 2021 and 2022, partly thanks to the rebound in growth and support measures introduced by the authorities, poverty incidence declined to below pre-pandemic levels. Despite progress, 55 percent of the population in Georgia lives under US$6.85 a day (in PPP), and one-third is susceptible to falling back to poverty.

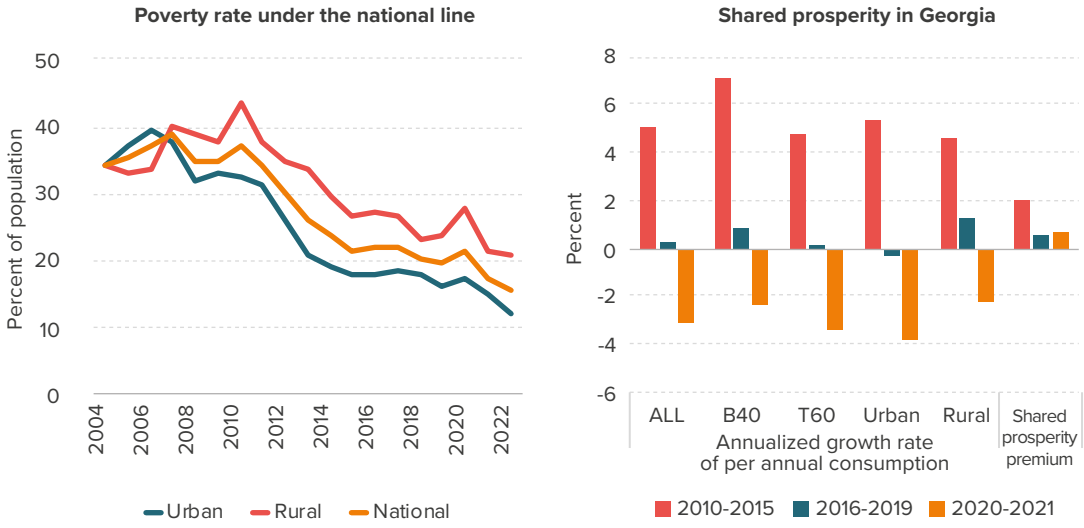
Although the "shared prosperity premium" remains positive, it became smaller in recent years. Between 2010 to 2015, annualized consumption grew across the different household groups, with substantially higher growth among the poorest 40 percent of households (7.2 percent growth) than for the top 60 percent (4.8 percent), which resulted in a significant shared prosperity premium (Figure 5, right panel).[11] While growth remained robust overall during 2016-19, currency depreciation affected household consumption growth rates, and the shared prosperity premium declined significantly, as the contribution of labor incomes dwindled. During the pandemic, all household groups were affected significantly. Overall, growth has remained slightly pro-poor, but the ability to take people out of poverty has declined, as consumption growth slowed.

Since the last SCD, the contributions of labor income to total income dwindled for both hired employment and self-employed, while social protection and social assistance helped mitigating the impact of the pandemic. The wage employment contribution to income growth declined from 5 percentage points in 2010-14 to 2 percentage points in 2015-19, then less than 1 percentage point during the pandemic (Figure 6). Despite the relative resilience of the agricultural sector,

10 GNI per capita in PPP increased from 12,112 in 2014 to 15,952 in 2022 (constant 2017 international $).

11 The 'shared prosperity premium' is calculated by subtracting the income growth rate of the total population of a country from the income growth rate of the poorest 40 percent of the population.

Figure 5. Poverty reduction slowed in the second half of the last decade, and the shared prosperity premium declined



Source: Geostat and World Bank staff calculations.
Note: 2015 was the base year for calculating the poverty line. The time period 2004-2016 was recalculated according to the 2014 general population census. The Sampling Frame from 2017 is the 2014 Population Census Database.

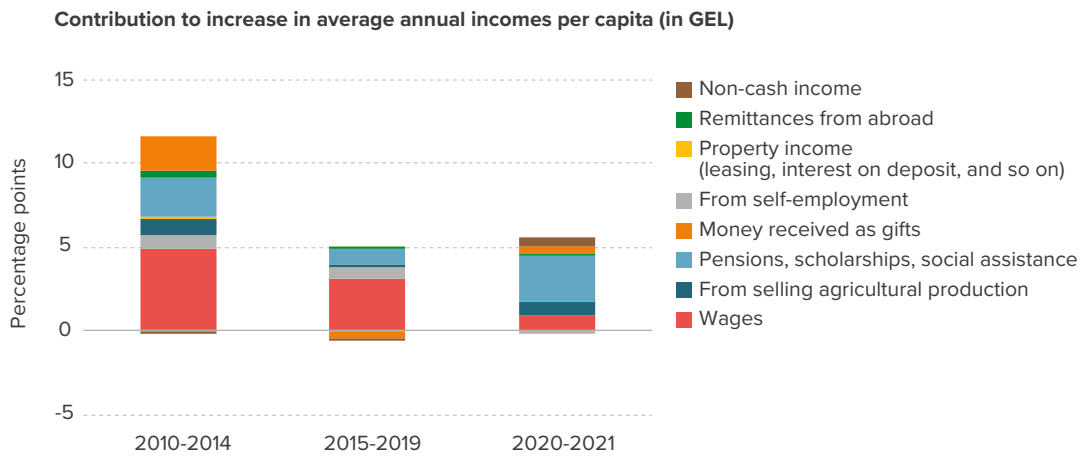
falling incomes from sales of agricultural products affected rural households. In urban areas, the self-employed were particularly affected during the COVID-19 crisis. The contribution of social assistance and social protection to household income growth was significant (2.3 percentage points) in 2010-14, remained slightly positive during 2015-19, and increased to 2.8 percentage points (out of 5.6 total) during the COVID-19 crisis, which helped mitigate the negative impacts of the shock on the most vulnerable.[12]

Inequality remains high by ECA standards, although it has been on decline and some fiscal policies help reduce disparities. Since 2017, inequality has declined significantly, while it remains high among peer countries (Figure 7). Inequalities are associated with many characteristics, such as ethnicity and gender, but can also be observed across regions—with the poorest regions not only facing more people in poverty, but also greater challenges in the delivery of quality services (World Bank 2022b). Direct fiscal interventions—direct taxes, direct transfers, and pensions—are found to be progressive, reducing the Gini inequality index by 8 percentage points in 2021.[13] Pensions have the largest impact on reducing inequality. In contrast, indirect subsidies (mainly on utilities) and indirect taxes increased inequality by 2 percentage points. While pensions and social assistance programs are well-targeted and efficient, the fiscal system does not cover the unemployed effectively.

12 The expansion of targeted social assistance benefits to households with children, loosening the eligibility criteria, and the increase in benefits from GEL 30 to GEL 50 per child per month helped soften the impacts of the crisis.

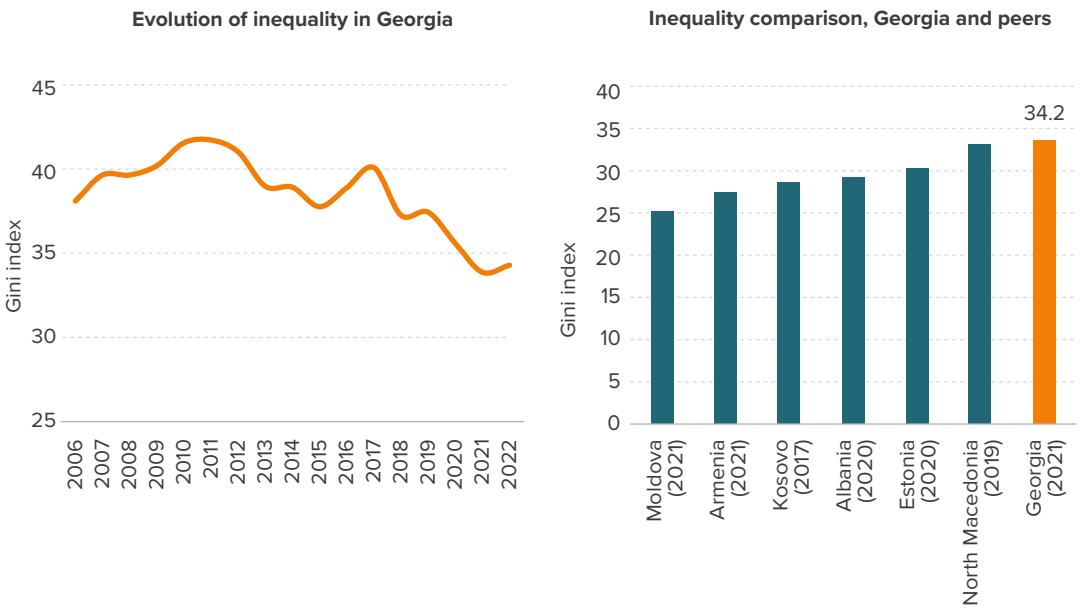
13 Preliminary estimations of the redistribution capacity of the fiscal system for Georgia based on the Commitment to Equity Methodology.

Figure 6. Income growth at the household level decelerated in recent years



Source: World Bank estimates, using data from Geostat 2022.

Figure 7. Income inequality in Georgia has been on the decline but remains the highest among structural peers



Source: Geostat (left) and World Development Indicators (right).
Note: On the right-hand-side chart, inequality was calculated by total consumption, cash and non-cash consumption expenditures. Data for 2006-2016 was recalculated according to the 2014 general population census.

Internally displaced people (IDPs), ethnic minorities, persons with disabilities, and women are more prone to poverty, compared to other groups. There are nearly 300 thousand IDPs registered in Georgia, and the share in total population is among the highest in the world. The poverty rate among IDPs (43.3) was more than double the national average in 2021. Most IDPs (over 60 percent) lack ownership of their dwellings or any productive assets, lowering their potential to escape poverty and diversify income. Ethnic minorities, which make up 13.2 percent of Georgia's population, also suffer from higher poverty rates, in part since most minorities live in rural areas and are employed in low-productivity sectors. The language barrier poses a significant challenge for ethnic minorities in accessing education, the job market, and public services.[14] Around 30 percent of Azeri women are prone to poverty—the highest poverty rate across nationality and gender groups. Overall, women are more prone to being poor due to differences in wages and other gender gaps (Box 2). Finally, persons with disabilities also face significant disadvantages, with nearly 6 percent of them being illiterate.

BOX 2. WOMEN REMAIN AT A DISADVANTAGE IN GEORGIA

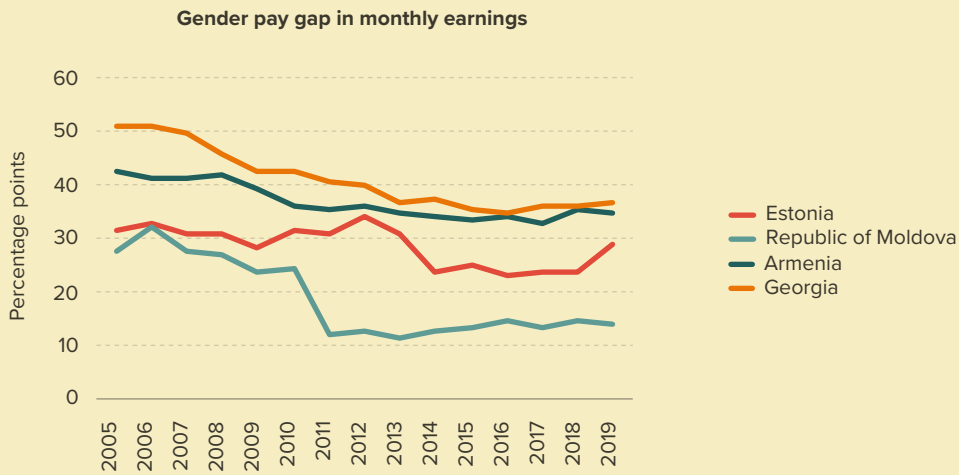
Women are more prone to being poor due to differences in wages. Despite the similar incidence of poverty among men and women, female-headed households are almost 3 percentage points more likely than male-headed households to be poor (HIES 2018). At the same time, incidence of poverty is highly related to the educational attainment: women who have not completed their secondary education are three times more likely to be poor than women with tertiary level of education (EU 2021). Following a decline during 2005-16, the gender pay gap increased slightly in recent years and remains above most comparators (Figure B.1). This gap can partly be explained by gender segregation across certain industries and by fewer hours of employment for women due to domestic work,[15] although after controlling for differences in demographic and job characteristics, the gap is still at 16 percent of women's earnings.

Women tend to be employed in low-paid sectors and at lower positions than men, and their labor participation level remains low. According to the World Economic Forum's Global Gender Gap Index 2021, Georgia's performance has deteriorated in the economic participation and opportunity component, ranking 64th among 156 countries in 2021, compared to 41st place among 115 countries in 2006 (EU 2021). The negligible difference between male and female unemployment level fails to capture existing gender constraints and inequalities in labor market. Even though girls score higher on international tests than boys, women tend to be employed in the low-productivity, low-paid sectors, or occupy lower positions than men in the same economic sector. Across sectors, women are overrepresented in education, social services, and health care, while men predominate in energy, IT, and construction (EU, 2021). This in part is determined by a lack of females graduating with STEM degrees, as well as by cultural stereotypes.

14 Most of the Azeri population living in Georgia (78.3 percent) and a sizeable portion of the Armenian population (36.6 percent) do not speak the official language (NIMD 2017).

15 As much as 44 percent of women do not receive remuneration for their labor for domestic work.

Figure B.1. The gender pay gap has declined but remains above peers



Source: UNECE.
Note: Gender pay gap is the difference between men's and women's average earnings from employment, shown as a percentage of men's average earnings. Data for other peers are not available.

There are significant gaps as well in access to land, and business ownership, among others. Only 35 percent of agricultural land plots under private ownership are owned/co-owned by women. In terms of accessing finance, while there are no significant gaps in terms of account and deposit ownership, women have challenges to get collateralized loans (EBRD 2021a). Women's ownership and management of firms is low, as well—only one-fifth of firms in Georgia have female participation in ownership, and as few as 16 percent of firms have a female top manager (World Bank, 2021c). However, Georgia has improved the legal environment to protect women's businesses and economic activities, with the Women, Business and the Law Index increasing from 58.8 in 2004 to 88.1 in 2022 (World Bank 2023a). Nevertheless, women entrepreneurs in Georgia still face greater challenges in access to finance due to absence of collateral. These issues were further exacerbated by the pandemic (EBRD 2021a). Overall, men own and dispose of larger share of almost all types of assets, such as real estate, land, and large equipment, and the gender asset gap is more pronounced in rural areas (EU, 2021).

Moreover, despite some measures adopted by the authorities, gender-based violence continues to be an issue. In 2017, the Interagency Commission on Gender Equality, Violence against Women, and Domestic Violence Issues was created to update and reform the legal system, address the practice of early marriage, and combat violence against women through awareness raising campaigns.[16] However, according to the 2017 National Study on Violence against Women in Georgia, up to 6 percent of surveyed women had experienced intimate partner physical and/or sexual violence at least once in their lifetime. Femicide remains a concern, which points to the absence of strong, effective, and coordinated preventative policy measures.[17]

16 Decree # 286 of the Government of Georgia "On Establishment of Interagency Commission on Gender Equality, Violence against Women and Domestic Violence Issues and Approval of its Regulation June 12, 2017."
17 Reports by Georgia's Young Lawyers' Association (GYLA), one of Georgia's largest NGOs.

TABLE 1. IN THE HUMAN CAPITAL INDEX, GEORGIA IS BEHIND THE ECA AVERAGE

	Georgia	UMIC	ECA average
Human Capital index	**0.57**	**0.56**	**0.89**
Survival to Age 5, percent	99	98	99
Expected Years of Schooling	12.9	11.8	13
Harmonized Test Scores	400	411	479
Adult Survival Rate, percent	85	86	90

Source: Human Capital Index, 2020.

Georgia's performance in the Human Capital Index (HCI) is behind the ECA average and outcomes hamper inclusive growth. Inequalities emerge early in life and relate to differences in human capital endowments. Georgia ranked 85th out of 174 countries in the 2020 Human Capital Index. A HCI score of 0.57 means that a child born in Georgia will be 57 percent as productive as she could be if she enjoyed complete education and full health. Even though it is an improvement from 2010 HCI score of 0.54, and along the upper-middle-income country average, it is significantly behind the ECA average. While Georgia scores by the ECA average in terms of survival to age 5 and expected years of schooling, it lags in harmonized test scores and in adult survival (Table 1). Life expectancy in Georgia is 72 years, compared to the regional average at 77 years; this is to a large extent due to non-communicable diseases (NCDs), which affect men in particular (WHO 2020). Poor educational attainment affects individual's ability to avoid falling into poverty (Thorat et al. 2017), as well as to benefit from healthcare (Gounder and Xing 2012). Stunting – which affects cognitive development all along children's learning path – can still be observed in close to 6 percent of children, while nearly 40 percent of children aged 2-7 have high concentrations of lead in their blood, affecting their cognitive and socioemotional development (World Bank 2022b). Paint and other construction materials appear to be among the causing factors. The Government of Georgia has officially endorsed the implementation of an Environmental Health Surveillance System specifically focused on lead, to be piloted in 2023.

Challenges

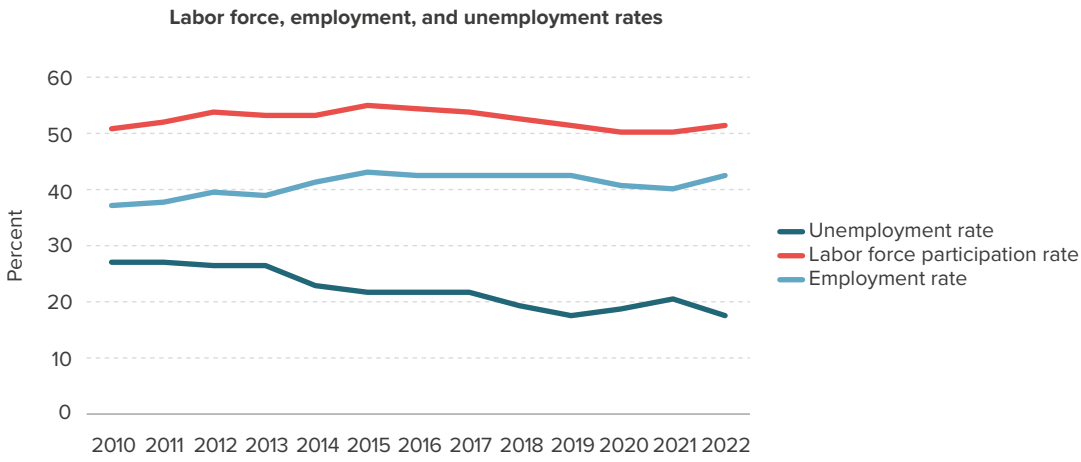
Drawing from the discussion on growth and inclusion trends, this section identifies several challenges behind those trends. The previous section found that while growth has remained robust and inequality has been on decline, poverty reduction has slowed and there are persistent inequities. The growth accounting framework highlighted the declining contribution of labor to growth (back to Figure 3), a modest contribution of human capital, and the need to sustain total factor productivity growth. Along that framework, this section identifies a series of challenges relating to (#1) declining labor force participation and lack of quality jobs; productivity of human

capital (#2 and #3); firm-level productivity (#4); and trade and connectivity (#5). Most of the challenges discussed in this section are consistent with challenges identified in the 2018 SCD, although, in some cases, the focus is shifted to better account for the most recent developments and evidence. For example, while the 2018 SCD discussed labor issues with a focus on skills, this SCD Update looks into both demand- and supply-side constraints.

Challenge #1: Declining labor force participation and lack of quality jobs

Demographic changes—especially outmigration and aging—have reduced the labor supply in Georgia. At 3.7 million inhabitants, Georgia's population has declined 7.7 percent since the beginning of the century, mostly due to outmigration. Georgia's population is also aging: the median age is 38 years, increasing by around 2 years each decade. In addition, the economic slowdown in 2015 and 2016 may have contributed to a decline in labor force observed in the second part of the past decade (Figure 8). Women labor force participation (below 60 percent in recent years) remains lower than that of men (above 70 percent). Women tend to be responsible for child- and elderly-care, which often prevents them from working. This issue was further worsened during the pandemic due to school closures, as child education was levied heavily on families as well. These figures are consistent with a low contribution from labor (as a factor of production) to growth, as shown by the growth accounting exercise. While it has been argued that safety nets may be discouraging participation in the labor force, benefits are not substantial enough to significantly increase the reservation wage. In any case, the authorities have recently modified the regulation so that finding a new job does not result in automatic disenrollment from safety nets.

Figure 8. Labor force participation declined between 2015 and 2020

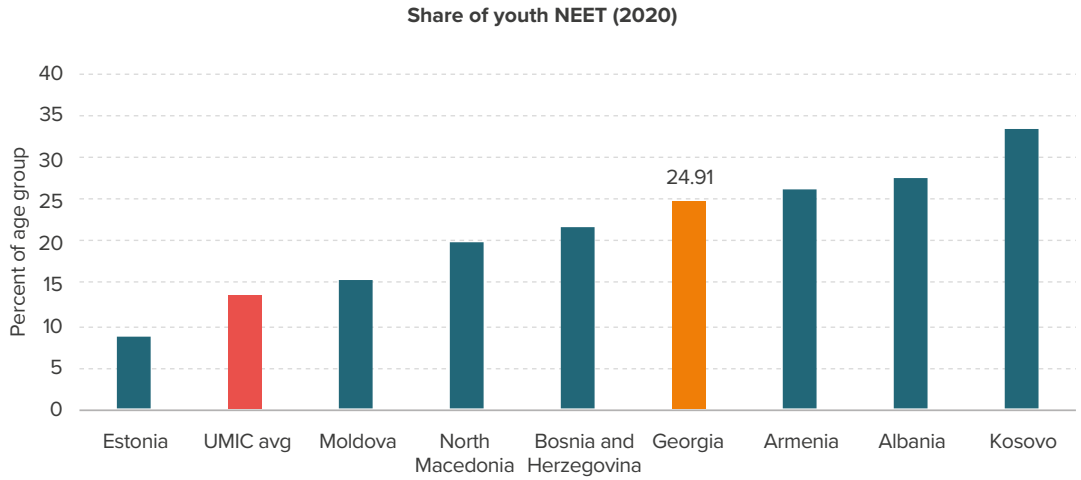


Source: Geostat.

Georgia has traditionally suffered from high unemployment, and the share of NEET among youth and women is particularly high. The unemployment rate has been traditionally very high, although it declined during the past decade. After some pick up in 2021, unemployment levels dropped again in 2022, aided by the strong post-pandemic recovery and the surge in money transfers in the aftermath of Russia's invasion of Ukraine. The share of youth who are not in employment, education, or training (NEET) in Georgia in 2020 was significantly higher than that of the comparator countries (Figure 9). The youth is particularly vulnerable to risks in the labor market, as often lacks information on their employment rights and obligations or lacks safety net safeguards. The school-to-work transition is also made more complicated by job search practices that tend to rely on personal networks as well as limited labor market information and employment search support (World Bank 2022a). While at the age of 15 the NEET rate is below 10 percent for both genders, by the age of 29 half of young women fall under this category. Household composition and marital status stand out as strongest correlates to being NEET for women. At the same time, household income level and NEET seem to be closely correlated: around 60 percent of NEET youth lives in the household in the bottom 40 percent of welfare aggregate (Fuchs et al. 2018).

Due to lack of opportunities, many Georgians, mostly people of working age, have opted for migrating, which is further reducing the size of the labor force. While most Georgians migrated to Russia in the nineties and early 2000s, over the past decade EU countries became the preferred destination, a trend boosted by the granting of visa-free entry by the European Union in 2017. Many young Georgians migrate there due to the low returns to education and limited quality jobs in the country. One of the challenges for labor emigrants from Georgia remains illegal intermediary services that offer individuals false information, encouraging illegal employment in

Figure 9. Georgia faces a large share of youth NEET

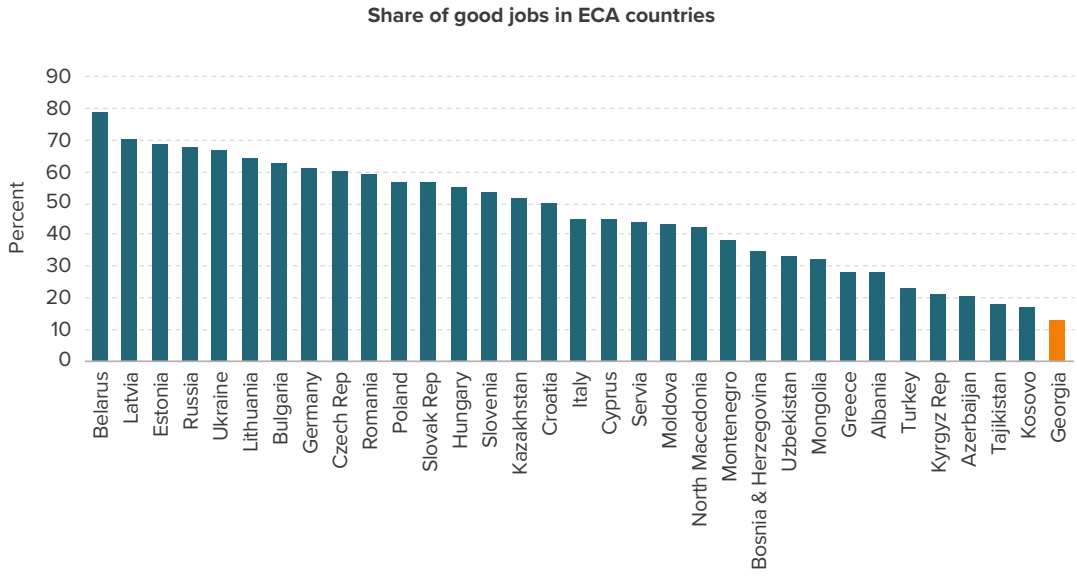


Source: ILO Statistics on Youth.

foreign countries (State Commission on Migration Issues 2020). While Georgia has experienced an influx of Russian, Belarusian, and Ukrainian citizens in the aftermath of Russia's invasion of Ukraine, many of them are professionals in the IT and finance sectors (German Economic Team 2022) that work remotely and there are questions about the extent to which they will be willing to participate in the Georgian labor market, since salaries are lower and they lack the language skills.

On the demand side, and despite robust economic growth, Georgia has struggled to create enough high-quality jobs, which limits opportunities for further poverty reduction. In 2015-16, just about 13 percent of total jobs featured more than 20 hours and a permanent contract, the lowest share in ECA (Figure 10). Good jobs in Georgia have been created mostly for the high-skilled workers in urban areas, yet the relatively low returns to tertiary and professional education suggests that the supply of highly educated workers exceeds the demand. Employment is mostly concentrated in low-productivity sectors (such as agriculture and wholesale and retail trade), as well as some public and social services (education, healthcare, social work). High-productivity services (such as financial intermediation information technology, and telecommunications) have either registered modest job creation over the last decade or are still too small to have a significant impact on overall employment growth. This limited creation of high-skill and quality jobs. Entrepreneurs consulted during the preparation of this SCD argue that, despite recent policy reforms, the small domestic market limits the ability of firms to grow and thus to create more formal jobs. Both stagnant total factor productivity at the firm level (challenge #4) and limited trade and connectivity (#5) potentially affect the demand for labor.

Figure 10. In 2015-16 Georgia ranked at the bottom in ECA in the share of quality jobs



Source: Fuchs et al. 2019.
Note: Share of good jobs (identified as working 20 or more hours a week with a permanent contract). Estimations are based on the 2015–16 round of the Life in Transition Survey carried out by the European Bank for Reconstruction and Development in collaboration with the World Bank.

Challenge #2: Low Learning and Skills Development Outcomes

On the supply side, skills mismatches are reportedly one of the biggest constraints for firms. The skills mismatch has partly been explained by the poor quality and relevance of vocational and higher education programs, though studies also point towards an oversupply of higher education graduates (World Bank 2022b). Skills mismatch was among the top three obstacles reported by Georgian firms in the World Bank's 2019 Enterprise Survey, with 15 percent of firms reporting that skills mismatch was a major obstacle to doing business, although the share is lower than the average for Europe and Central Asia (19.7 percent). The skills shortage is particularly a constraint for large companies and those in the service sector. The lack of skills demanded by employers obstructs the movement from low- to higher-productivity sectors and from rural to urban areas. According to the Global Competitiveness Index 2019, out of 141 countries, Georgia ranked 125th in skills of the current workforce and 120th in ease of finding skilled employees (EBRD 2021b).

While the Georgian workforce is well educated compared to other ECA countries in terms of enrollment and completion rates in tertiary education, the professional skills provided may not satisfy employers' demand. Employers are often looking for higher order cognitive skills and socio emotional skills. While digital skills have been improving overall,[18] the lack of basic digital literacy remains an issue for certain groups in rural areas.[19] There is also a lack of specialized skills conductive to innovation and technology adoption. Meanwhile, despite efforts to improve quality and funding, over the past six years only up to 6 percent of school graduates have registered for Vocational Education and Training (VET) programs, and challenges in terms of collaboration between educational institutions and industries remain. Not having the skills sought after in the labor market significantly reduces the chances of workers securing quality jobs, which will affect their incomes and productivity throughout their lives (World Bank 2022b).

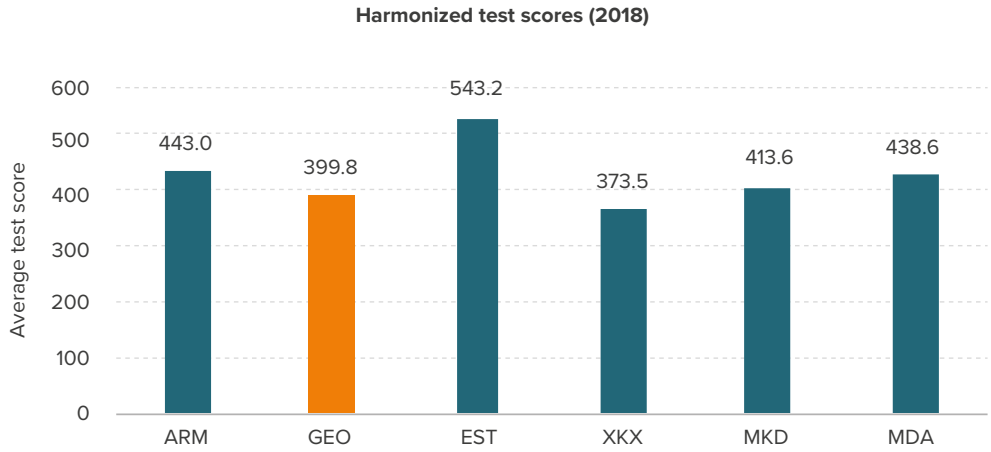
Despite near-universal schooling enrollment, Georgia lags in learning outcomes. A child who starts school at age 4 can expect to complete 12.9 years of school by her 18th birthday, which is better than many comparator countries. However, when factoring in what children actually learn, the number of adjusted years of school amounts to only 8.3 years (Figure 11, left panel). Georgia had the second-lowest reading score in the region in the 2018 Program for International Student Assessment (PISA) test scores, which captures the reading and comprehension abilities of 15-year-old students. In 2021 Georgia participated in the Progress in International Reading Literacy Study (PIRLS) and achieved a slight improvement in reading compared to 2016.

The quality of education is affected by several challenges. These include poor quality resources and physical learning environment, outdated teaching practices and methodologies, inequitable financing models, inadequate leadership, and management capacity, and limited parental engagement. Poorly prepared teachers and lack of teachers' support are also affecting the quality

18 The rating received by employers of employees on Information and Communication Technologies (ICT) skills in the Survey of Business Demand on Skills (MoESD 2022) increased significantly between 2017 and 2022.

19 Surveys conducted under the *Log-in Georgia* project in project areas identify basic digital literacy, awareness around internet use, and online safety as the most in-demand trainings by the populations surveyed.

Figure 11. Georgia lags in learning-adjusted years of school and scores poorly on harmonized tests



Source: World Bank Human Capital Index (left) and PISA (right).
Note: The larger circle in the left-hand-side chart represents Georgia.

of general education (World Bank 2022b). Performance is likely to have been impacted due to the COVID-induced learning disruptions and school closures (World Bank 2023b), which are estimated to have resulted in losses equivalent to 1.5 years of instruction and widened inequities. Integration of digital tools and technologies in school education is still lagging. Quality also remains an issue in higher education, which remains far below the average of the EU and of many other ECA countries (World Bank 2022b).

Lagging pre-primary enrollment likely affect education outcomes. Except for preschool, Georgia has almost universalized primary and secondary education access, and there has been a significant decrease in the number of early leavers. Yet schooling rates for three- to five-year old children have progressed slowly, due to lower access to preschool education and lack of an integrated system for early childhood development (such as education, health, and social protection). Pre-primary net enrollment for five-year-old children increased from 40 percent in 2013 to 78 percent in 2020, while overall the cohort of three- to five-year-old still lags with 28 percent net enrollment. Only 33 percent of ethnic minority students and 47 percent of students living in rural areas enroll in early childhood education, significantly lower than the national average (70 percent) (OECD 2019).

Almost all recent international assessments point to inequities in access to high-quality education. In the PISA tests, the differences between the best and worst performers are considerable, with the bottom 25 percent performing 70 PISA points below the top 25 percent. Students from disadvantaged families and rural areas, IDPs, and minority groups face bigger challenges in access to high-quality education, and thus their learning outcomes and respective career opportunities remain limited (Carnegie Europe 2021). Socio-economic status also affects

education quality, as students largely rely on private tutoring to pass the United National Exams and obtain scholarships. Higher performance of private school students in the international assessments is likely to be linked to socio-economic status and to result from self-selection. Moreover, students from rural areas scored 44 score points behind their peers in cities, equivalent to nearly 1.5 years of schooling. Absence of educational institutions near their homes is a reason for not enrolling their children in school for 67 percent of Azerbaijani parents, compared to only 25 percent of Georgian parents (OECD 2019). Finally, while female students outperform boys in almost all subjects and at all levels, girls are tracked away from science, technologies, engineering, and math throughout their education, limiting their opportunities to go into these fields as adults.

Challenge #3: Health Care Delivery and Financing Gaps

Although access to health care services has improved dramatically over the past two decades, some challenges remain. Georgia's infant mortality rate per 1,000 live births fell from 32 in 2000 to 8.2 in 2021, which is already below the ECA average (excluding high-income countries). However, life expectancy—particularly for males—still lags significantly, hindering human capital. Georgians face among the highest incidence of non-communicable diseases (NCDs) in ECA (Figure 12). Yet despite the growing incidence of NCDs, the country spent only 2 percent of total health expenditure on preventive care in 2018, revealing a misalignment between the population's health needs and spending priorities (World Bank 2022b). The development of evidence-based clinical protocols and guidelines has helped standardize services, but a systematic practice of developing and updating these protocols and guidelines and ensuring their implementation is needed.

The provision of health care services is imbalanced, as most of the funds are spent on costly inpatient services while primary care services remain underfunded. Georgia spends about 12 percent of total sector spending on primary health care (PHC), which is the lowest among 53 countries in the region. Moreover, the complexity and fragmentation of the health benefit package increases administrative costs and limits the pooling of funds. Misaligned incentives have also contributed to high costs in the delivery of health services. While all Universal Health Care Program (UHCP) beneficiaries must register with a primary care provider, PHC staff have no incentive to limit referrals for specialized care given the payment mechanisms (capitation to PHC providers and fee for service for hospitals) and the absence of referral protocols. In addition, emergency care coverage is more generous relative to non-emergency care coverage, and essential medicines are free when provided as part of inpatient or emergency care, encouraging patients to access emergency and/or hospital services directly.[20] During the pandemic, several deficiencies were exposed in primary healthcare clinics, including staff shortages, insufficient protective equipment, and lack of some essential drugs.

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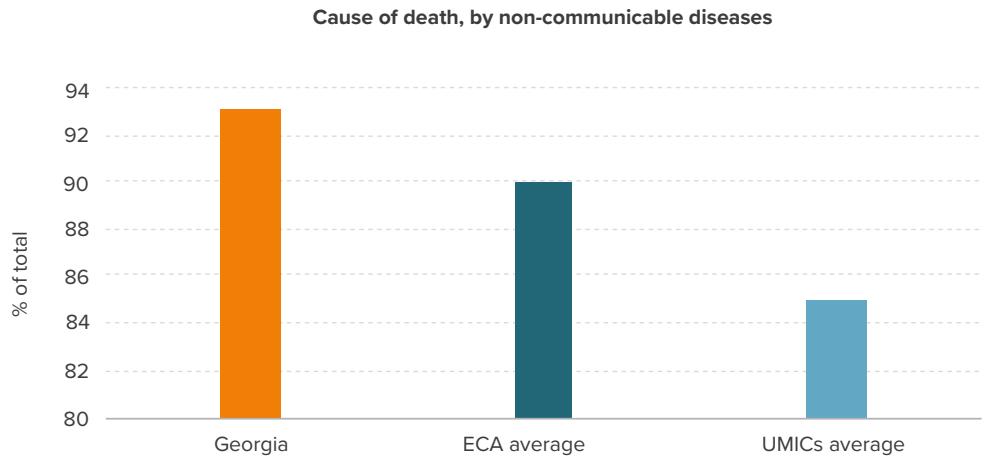
20 To help address incentive issues, the authorities have introduced a hospital reimbursement method based on diagnosis-related groups for 26 main diagnostic categories, across all health service groups covered under the UHCP. Some service categories (e.g., perinatal services, cardiac surgery for congenital abnormalities, etc.) are not covered.

Figure 12. Incidence of NDCs is higher than the regional and UMIC averages



Source: UN Population Division.

The implementation of health care reform has resulted in substantial reductions in out-of-pocket spending, but the cost of medicines remains a challenge for households. The introduction of the Universal Health Care reform in 2013 led to a decrease in out-of-pocket expenditures from 73.4 percent in 2012 to 46.8 percent in 2019 (WHO 2022). Limited coverage of outpatient medicines, weaknesses in the design of the co-payment policy, and providers being allowed to bill patients for the balance are some of the challenges that still result in relatively out-of-pocket payments when using publicly financed health services, even for poor households and people with chronic conditions (World Bank 2022b). In addition, pharmaceutical prices remain an issue: out-of-pocket payments account for 96 percent of pharmaceutical expenses in Georgia, and the state's contribution is only 2 percent.[21] Georgia's pharmaceutical prices are higher compared to neighboring countries, the averages for UMICs (32 percent higher), and ECA countries (18 percent higher). While Georgia currently does not have a policy to encourage the use of generic medicines, the authorities introduced price referencing for medicines within the Outpatient Medicines Program in February 2023.

Challenge #4: Low Productivity Growth at the Firm Level

Total factor productivity growth at the firm level has been stagnant. The 2018 SCD raised productivity-associated challenges, but that discussion was not underpinned by micro-level data analysis, which was unavailable at that point. New evidence shows that firm-level TFP growth has been stagnant and dispersed across firms—suggesting both low innovation and significant misallocation of factors of production—notwithstanding rising levels of revenue and capital in per

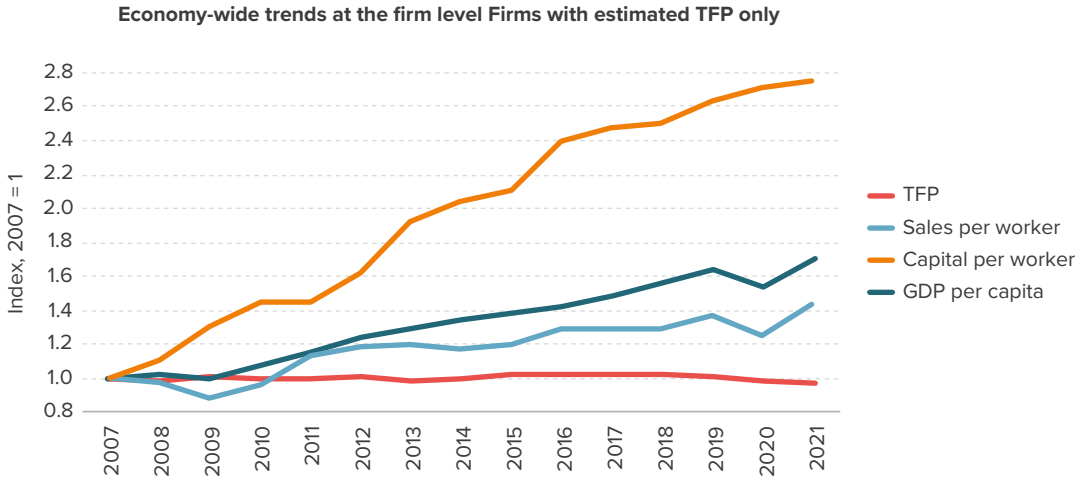
21 Ministry of Internally Displaced Person from the Occupied Territories, Labour, Health and Social Affairs of Georgia, 2018.

worker terms (Figure 13). The within-firm component of productivity growth in the manufacturing sector tends to be positive, although quite heterogeneous across different manufacturing industries. In contrast, the reallocation (or "between") component of firm-level productivity growth in the manufacturing sector tends to be negative across industries, indicating a labor misallocation problem. Georgian firms also lack behind peers on related efficiency indicators such as water productivity and energy intensity (discussed under challenge #7). In the services sector, both the within and the reallocation components are typically weak or negative, except for firms in the construction industry, where productivity has been increasing. Overall, large firms continue to dominate employment generation, but not productivity growth, while productive startups and Small and Medium Enterprises (SMEs) are struggling to scale up, pointing to room to improve the allocation of resources (IFC, 2023).

While competitive pressures have increased, they remain weak in some sectors, which may explain some of the abovementioned inefficiencies. Firm-level data points to increased competitive pressures in product markets in recent years – average markups have declined (World Bank 2022a). Yet, overall, in Georgia firms operate in markets with fewer competitors compared to peers, and competition may remain weak in certain sectors, as suggested by large dispersion in markups. In services, a small number of firms appear to be driving markups.

Access to finance has improved significantly, but largely from banks and for basic products, and it continues to be cited by firms as one of the top obstacles to firm operation. In recent years, Georgia has made significant strides in terms of financial sector regulation and supervision, as well as access to finance (Box 3). Domestic credit to the private sector increased from 55 percent of

Figure 13. Average TFP growth among Georgian firms has been stagnant



Source: World Bank staff estimates, based on the Business Statistics Survey by Geostat.

GDP in 2016 to nearly 74 percent by 2021. The share of firms reporting a bank loan/credit line rose from 37.9 percent in 2013 to 43.3 percent in 2019, compared to the ECA regional average of 40 percent (World Bank 2022a). Yet in the 2019 Enterprise Survey, access to finance was perceived as the second-largest constraint by firms, after political instability. The offering of financial services is basic: typical products available are accounts with overdraft facilities, working capital loans, and only a few long-term investment products. Higher collateral requirements (mostly land and real estate) and higher rejection rates than in the ECA region suggest room for improvement. A lack of diversity of other financial products and services (such as asset-based financing, Fintech, early-stage financing for start-ups, growth equity for SMEs, access to capital markets for large corporates) limits the ability of the financial sector to meet the diverse needs of firms throughout their lifecycle and hinders firm growth. Despite recent progress in implementing a sustainable finance taxonomy, the financial sector is not ready yet to meet growing sustainable finance needs, and disaster risk financing is also limited (see challenge #9).

Beyond economy-wide constraints, firm capabilities such as digitalization, ability to innovate and adopt technology, and managerial quality affect productivity growth. Research and development represented just 0.28 percent of GDP in Georgia, compared to almost 1 percent in Serbia, an aspirational peer. While Georgia's support for innovation has improved with the strengthening of its Innovation and Technology Agency, the innovation ecosystem remains nascent and has yet to evolve in a way that encourages regular interaction between private firms and research and development institutions, which do not have incentives to orient research towards commercialization (World Bank 2022a). On average, firms in Georgia have large gaps in managerial capabilities relative to peers in Eastern European countries. Finally, firm digitalization is uneven. While access to computers and the internet is almost universal at the firm level, less than 40 percent of micro and small firms, on average, had websites or used local media, and e-commerce remains rare.[22] To a significant extent, all these deficiencies are linked to lack of human capital with the needed skills, which remains a major constraint to firm operation (EBRD, 2021b), as well as to lack of holistic planning and support by public sector agencies. The lack of a comprehensive digital economy strategy and the institutional framework to coordinate and implement the digital economy development agenda in Georgia results in fragmented efforts and offering of services by the public and private sectors, which hampers adoption by both firms and citizens.

22 Georgia's Innovation Survey, 2015-19.

BOX 3. SUMMARY OF RECENT REFORMS AND IMPROVEMENTS IN THE FINANCIAL SECTOR

Since the previous SCD, the legal and regulatory framework for the financial sector has been significantly improved, as the Basel III framework for capital and liquidity and Corporate Governance Code for financial institutions have been introduced. The regulatory framework for non-bank credit institutions has been strengthened as well, including with a new bank resolution regime aimed at strengthening the financial safety net (including the deposit insurance fund established in 2017). Amendments to the Securities Market Law, the enactment of the Funded Pension Law, the Law on Covered Bonds, and the Investment Funds Law, constitute important milestones towards the development of capital markets. Several monetary and prudential measures aimed at reducing the level of dollarization in the banking system and mitigating the associated risks have been adopted.[23] The National Bank of Georgia has also made significant progress in strengthening its supervisory framework, which is evolving towards a risk-based approach, and has published its supervisory strategy for the period 2022-25.

Various polices and initiatives have also been advanced to support financial sector development, promoting innovation, inclusion, and efficiency, as well as sustainable finance. The NBG has made strides in improving the policy environment and the infrastructure for digital financial services and fintech. It established an Innovation Office in 2019, introduced a licensing framework for digital banking and developed regulatory sandbox in 2020, launched the first phase of open banking in 2021, aligned the legal framework for payments services with the EU Payment Services Directive PSD2 in September 2022, and is further refining its Fintech vision and exploring options to implement open finance. The NBG has also made a strong push on the sustainable finance agenda and has been implementing various initiatives following its sustainable finance roadmap launched in 2019, including a new sustainable finance taxonomy.

The government has also prepared an updated Capital Market Development Strategy in 2022. The Ministry of Finance has implemented a Market Maker Pilot Program and improved debt management operations as well as its investor relations strategy, further supporting the foundations for capital market development. The government is actively exploring support mechanisms for alternative financing sources, including risk capital for startups and SMEs, expanding on its existing business support toolbox based on grant and credit instruments.

Despite commendable progress, the Financial Sector Assessment Program noted that a well-developed banking sector and progress on financial access in Georgia mask a lack of diversity in financial products and services and disparities in financial inclusion. Diversifying sources of financing will be key to resilient and inclusive growth, while continuing to improve oversight and foundations for financial stability given Georgia's vulnerability to external shocks. (World Bank 2021c).

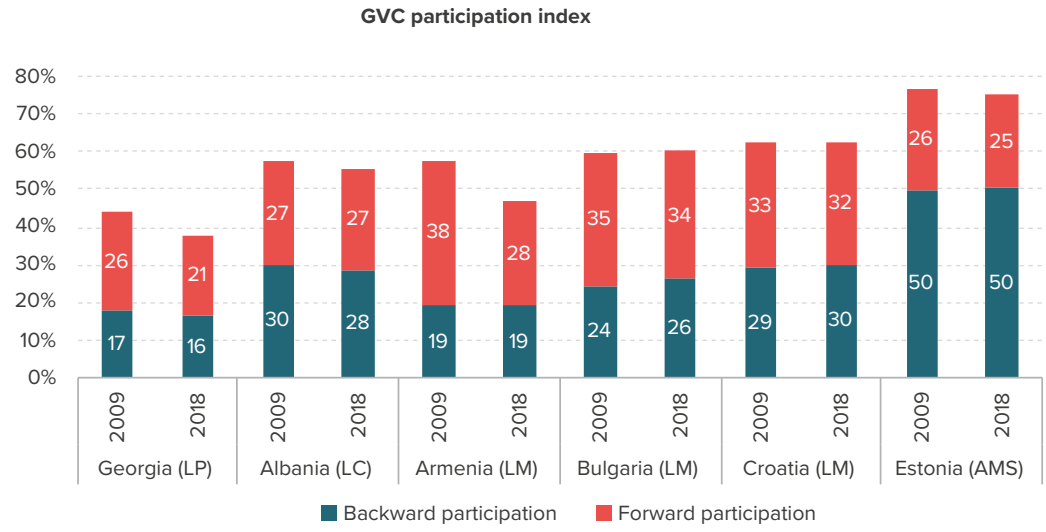
23 These measures include more stringent requirements for unhedged borrowers in FX, higher capital charges on unhedged FX credit, an outright ban on FX loans below 200,000 GEL, a Liquidity Coverage Ratio (LCR) requirement for banks in FX, higher reserve requirements and penalty rates of remuneration for banks on their FX deposits, and reserve requirements differentiated by bank based on their level of deposit dollarization.

Challenge #5: Incomplete Trade Integration and Connectivity

While Georgia has diversified its export markets and products, its export basket remains unsophisticated and dominated by low value-added goods, and integration into global value chains (GVCs) continues to be elusive. Over the past decade, Georgia has strengthened its position as a trade hub for the region, with re-exports gaining a greater share of trade and some diversification in terms of both markets and products. However, merchandise exports are still dominated by primary products and resource-based manufactures, which grew significantly in share and now account for more than 60 percent of the total. Among peer countries, only Armenia has a higher share of resource-based manufactures and a lower share of high-tech exports than Georgia. Moreover, Georgia's GVC participation index—in terms of both backward and forward participation—has been lower than peer countries and declined between 2009 and 2018 (Figure 14). This suggests that Georgia has further room to use imported inputs to improve its export competitiveness. Upgrading and adapting to meet EU standards is another opportunity. Finally, Georgia has the potential to embed services in exports and enhance their value addition.

Despite some improvements in tracking and tracing and in international shipments, Georgia still lags behind peers in logistics. The 2023 Logistics Performance Index (LPI) suggests that Georgia has made some significant improvements, particularly in terms of tracking and tracing of merchandise, and it has caught up with structural peers in most dimensions (Figure 15). Nonetheless, it still lags its structural peers in logistics competence and quality and in infrastructure, and it is still

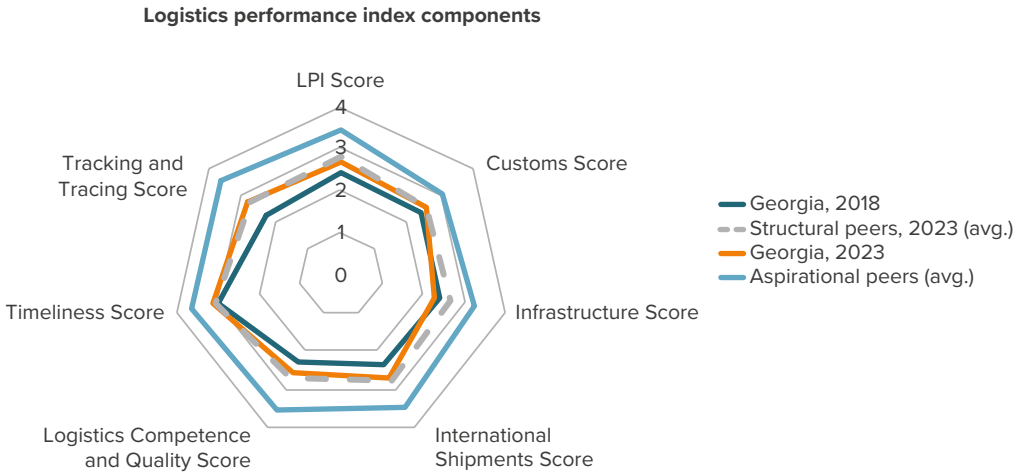
Figure 14. GVC participation levels in Georgia are significantly lower than among peers



Source: Based on UNCTAD-EORA, in World Bank (2022a).
Note: GVC participation categories: LP = low commodity; LC = limited commodity; LM = limited manufacturing; AMS = advanced manufacturing and services. Backward linkages refer to the import of intermediate inputs for finalization by local industries (as a buyer), while Forward participation refers to participation as a seller.

far away from the standards of aspirational peers (Croatia and Estonia). High transport and logistics costs, unpredictable delays, and an underdeveloped logistics industry have been pointed to as "Georgia's weakest link" (World Bank 2022a).

Figure 15. Georgia still lags peers in infrastructure and logistics competence



Source: Logistics Performance Index, World Bank.

Infrastructure gaps are gradually narrowing, but significant constraints remain. Firms perceive the quality of Georgia's transport infrastructure to be on par with that of countries in Central Asia but below the average for the ECA region (World Bank 2022a). To address some of the international road transport bottlenecks, the Government of Georgia is advancing the construction of the East-West Highway as well as improving North-South connectivity. However, other challenges remain. For example, the Poti port is already constrained by limited storage capacity and container handling equipment and is expected to reach full capacity within the next five years, which would limit trade growth prospects. Meanwhile, rail freight is hampered by old infrastructure and an obsolete rolling stock, with Georgian Railway struggling to meet customer demands that require increased commercial orientation. Georgia is also faced with shortages in warehousing space and has not yet implemented an integrated center providing third party logistics services to be able to attract larger firms. This makes it harder to enhance Georgia's participation in GVCs, which requires a great deal more reliability and financing.

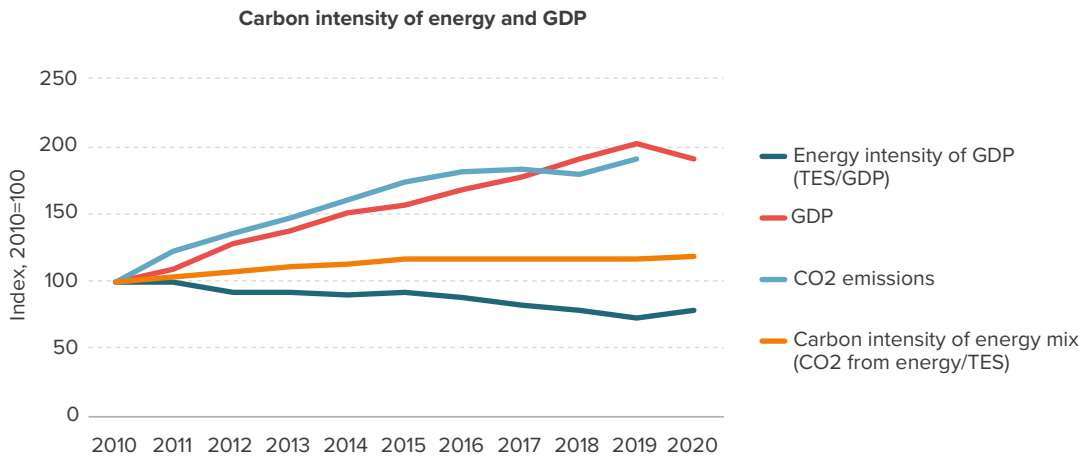
Sustainability

Key Trends

Georgia has so far been unable to decouple carbon emissions from economic growth. After the initial drastic decline following the split from the Soviet Union, greenhouse gas (GHG) emissions have continued to rise since 2000 alongside real GDP growth. Over the past decade, the energy intensity of GDP and carbon intensity of total energy supply have flattened rather than declining as in other ECA countries (Figure 16). While GHG emissions per capita in Georgia are only half of the UMIC average, they increased by 77 percent in 2010-19 (ClimateWatch 2022). In Georgia, material productivity,[24] inversely related to carbon emissions, continues to lie significantly below EU levels and the levels of peers such as North Macedonia and Albania (OECD 2022b).

The transport, waste, and industry sectors are the largest emitters in Georgia. In 2019, the transport sector was responsible for 4 MtCO2e, approximately one-quarter of total national emissions in Georgia and 33 percent of energy-related emissions (Figure 17). Transport emissions occur from road passenger transport (68 percent of transport sector emissions as of 2015) and freight transport (31 percent of transport sector emissions as of 2015) (New Climate 2021). Emissions from waste, electricity and heat have remained relatively constant over the last two decades, while emissions from construction as well as from manufacturing and industrial processes have been on the rise. While EU's introduction of the Carbon Border Adjustment Mechanism as

Figure 16. CO2 emissions have continued growing at pace with GDP over the past decade



Source: National Statistics Office of Georgia, World Development Indicators, International Energy Agency.
Note: TES=Total energy supply, GDP=Gross domestic product.

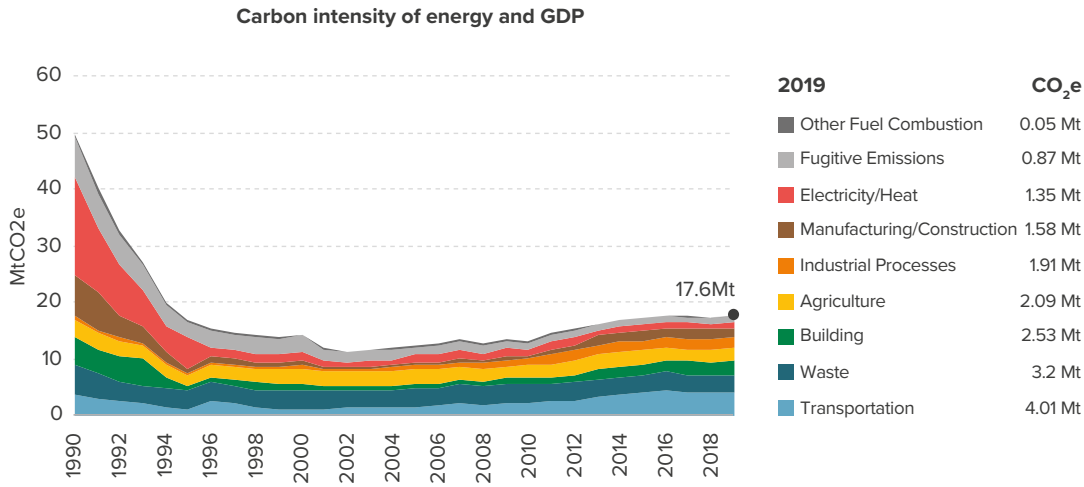
24 Material productivity is expressed as the amount of economic output generated (in terms of GDP) per unit of materials consumed domestically (in terms of weight).

currently proposed is only expected to affect approximately 1 percent of current exports,[25] this could change if the scheme is expanded to a wider set of products than those currently covered. With a fifth of exports directed to the EU, Georgia is highly vulnerable to the EU's shifts in demand for brown products and exposed to loss in market share. It is worth noting that the extraction and transformation of some of the minerals Georgia is exporting, such as ferroalloys, cannot be done without fossil fuels at present, and its demand could be impacted.

The dominance of fossil fuels in Georgia's energy supply has increased during the past two decades, while non-hydro renewable sources remain underutilized. The share of imported fossil fuels in the energy mix increased from 59 percent to 79 percent between 2000 and 2020 as demand kept growing while renewable energy supply stagnated. Imported natural gas provided 48 percent of Georgia's energy supply in 2019, followed by oil (27 percent), hydropower (15 percent), coal (4 percent), biofuels and waste (4 percent) and wind and solar power (1 percent). Domestic electricity generation is dominated by hydro power plants, while other renewable sources are severely underutilized. Georgia's steadily growing electricity demand is currently being met by domestic seasonal hydropower generation (75 percent of the total in 2020), supplemented by natural gas (25 percent) and imports. Until 2020, electricity prices in Georgia were among the lowest in ECA because of implicit subsidies to natural gas-based power generation, reducing the relative returns to investments in more energy efficient technologies. However, prices were raised by 70 percent for non-household consumers in early 2021, which is expected to create incentives for firms to invest in energy efficiency.

Figure 17. The increase in carbon emissions over the past decade has been driven mostly by transportation and industry

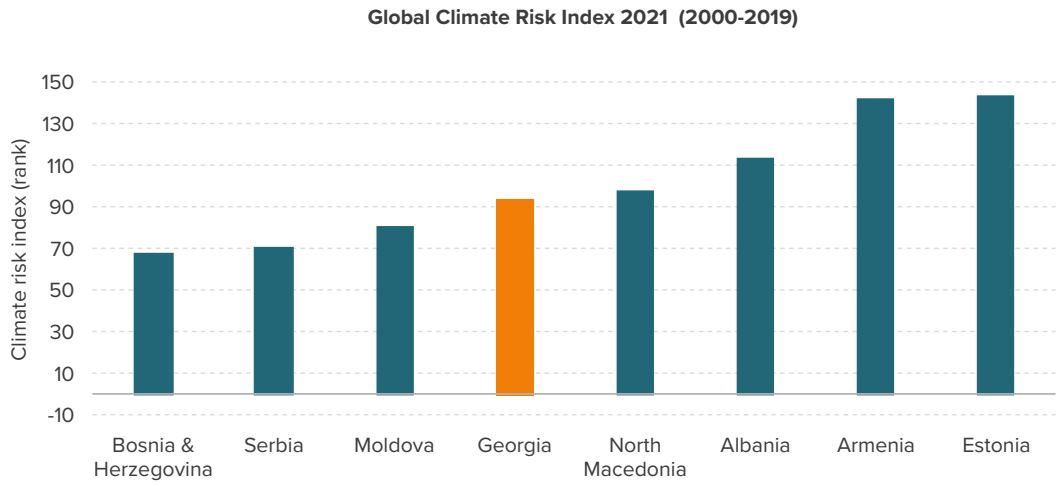
GHG emissions by sector in 2019 (without Land Use, Land-Change, and Forestry)



Source: ClimateWatch.

25 COMTRADE.

Figure 18. Georgia has suffered more climate change impacts than several peers



Source: Furceri et al. 2021.

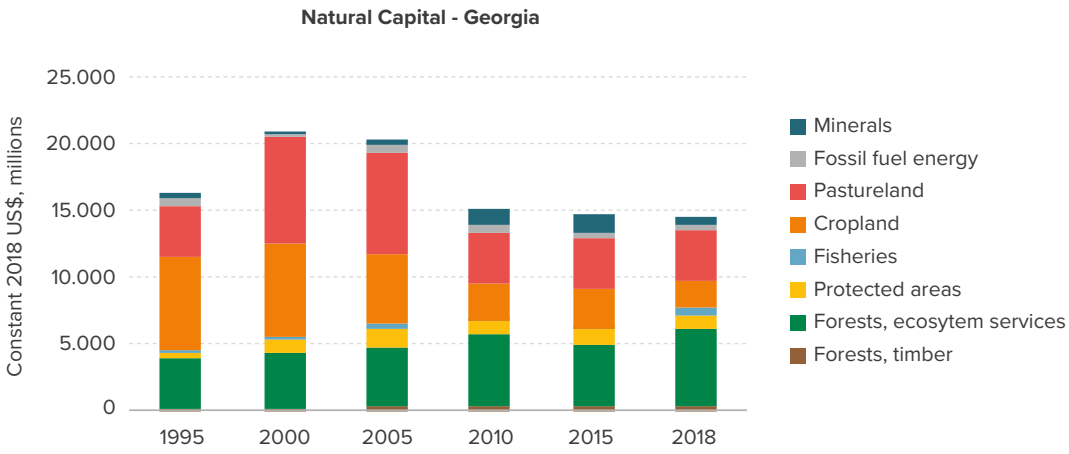
Georgia is moderately exposed to climate change and natural hazards. Losses incurred between 1995 and 2013 because of landslides, floods, droughts, storms, avalanches, and hail were calculated at approximately US$1 billion. Other non-climate induced hazards with high risk in Georgia are wildfires (ThinkHazard 2022) and earthquakes. Comparing climate risk-related losses over two decades in Georgia and globally, Georgia has suffered more than 47 percent of countries globally and more than North Macedonia, Albania, and Armenia (Figure 18). Climate change will increase the severity and occurrence of climate-related natural hazards and also increase pressure on people and nature via shifts in seasonality, rising temperatures,[26] rising water levels in the Black Sea, and increasing variability in precipitation.[27] While Georgia's institutional readiness for climate change is ranked as above the global average (33rd best globally in terms of readiness),[28] large gaps exist in domestic innovation capacity for dealing with climate change and water resource management, among other areas. With only 8 irrigation reservoirs and no formalized water allocation processes, Georgia's irrigated agriculture often faces water supply failures, a deterrent to private commercial investments.

26 A four-fold percent increase in the average monthly occurrence of hot days in selected months is projected by mid-century under SSP3-7.0. (CCKP 2022).

27 A 30 percent loss in average monthly rainfall levels in selected months is projected by mid-century under SSP3-7.0. By the 2090s, the average temperature in Georgia is projected to increase between 1.4°C to 4.9°C above the 1986–2005 baseline, for emissions pathways RCP2.6 and RCP8.5, respectively. Under the highest emissions pathway (RCP8.5), this implies an annual likelihood of observing a heat wave in Georgia of 1 in 5 by the 2090s (low regional variation) and an increase in annual severe drought probability to over 70 percent (high regional variation) (CCKP 2022). Recession of the country's glaciers is expected to lead to increased flooding in Georgia due to changes in the seasonality of flows and increases in peak flows, but this is not covered by available models.

28 According to the 2021 Notre Dame Global Adaptation Initiative and Country (ND-GAIN) Index, which considers economic readiness, governance readiness, and social readiness.

Figure 19. Natural capital declined over the past two decades as the value of agriculture land was eroded



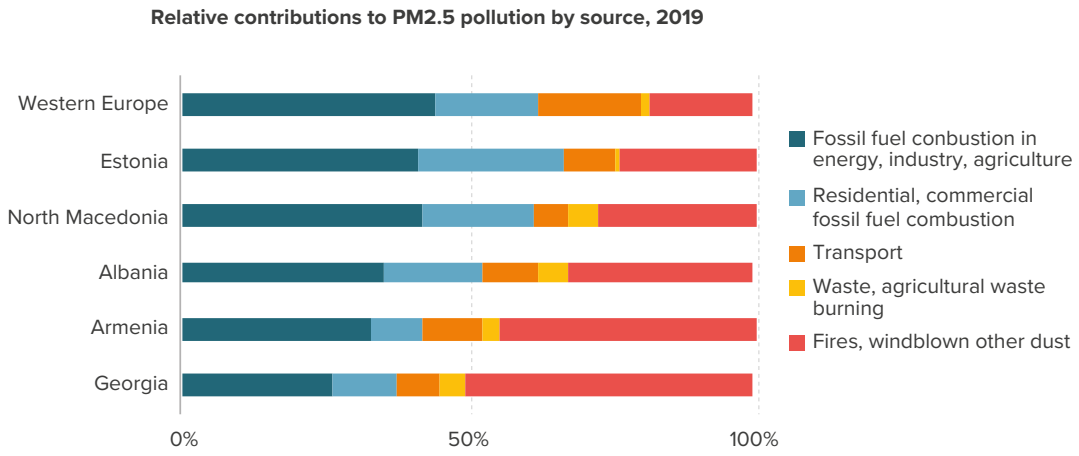
Source: World Bank (2022d).
Note: Renewable natural capital wealth by subcategory is a function of registered land area, current and projected production (considers degradation, sustainability of production/extraction levels, and resilience to climate change), domestic market prices for outputs, and land rental rates.

Georgia has experienced natural capital degradation, partly driven by lack of sustainable agricultural practices and inefficient land use. Figure 19 shows how Georgia has been able to sustain and even increase the value of forests and protected areas over time, while the value of pasturelands and croplands has declined significantly compared to the early 2000s. Unsustainable water use, grazing practices, and agricultural practices—including excessive pesticide and fertilizer use and intensive tilling—have caused continued degradation. At US$13 gross value added (GVA) per cubic meter, efficiency of water use[29] is significantly below the European Union (US$77) but similar to North Macedonia (US$10) and Albania (US$ 13) (FAO 2020). Georgia's agricultural productivity is much lower than the global average, especially among small-scale producers with high reliance on rainfed agriculture, who are the most affected by landscape degradation.

Landscape degradation is exacerbated by climate change, which will also affect water availability and food security. Increasing risks come from landslides, windblown dust and wildfires, desertification and expansion of semi-arid and arid areas, severe droughts, and intense winds. These events bring more soil erosion, further degradation of pastures and watersheds, fragmentation of forest cover, and localized water stress. Wildfires and desertification also exacerbate air pollution. Climate change will alter the balance of seasonal water flows, affecting both the reliability of hydropower generation and water supply for irrigation. All of these factors combined can affect food security. Climate change related land degradation also affects coastal zones in Georgia, with current losses estimated at over 4 percent of GDP (World Bank 2020a and World Bank 2020b).

29 Low efficiency of water use (expressed in GVA per cubic meter of water), indicates that more water is needed to produce the same amount of output, and that water demand is expected to increase more strongly with economic growth. The metric considers water use by all economic activities.

Figure 20. Air pollution in Georgia is disproportionately caused by windblown dust



Source: McDuffie (2021).

Air pollution is continuously above limit values in major cities and is trending upward, which has important implications for health. Air pollution levels in Georgia and especially in Tbilisi are high compared to international standards.[30] The 2019 annual average of PM2.5 concentration in Georgia was 17.9 µg/m^3, which is 3.6 times higher than the World Health Organization (WHO) target value of 5 µg/m^3.[31] In most countries, the majority of PM2.5 pollution is caused by fossil fuel combustion in energy, industry, agriculture, transport, and buildings; in Georgia, fires, windblown dust, and other dust account for approximately 50 percent of PM2.5 pollution, signaling the importance of landscape restoration and improved land management practices (Figure 20). Open agricultural burning remains a widespread solution to agricultural waste and is one of the main causes of rural air pollution. Air pollution affects sectoral productivity and consumption choices, leading to decreased labor productivity and to health issues (OECD 2021). WHO estimates suggest that mortality from air pollution in Georgia is significant, at 131 deaths per 100,000 people per annum, compared to less than 40 deaths on average in high-income countries (WHO 2019). Nationwide, the annual cost of health damages from PM2.5 exposure is estimated at 12.2 percent of GDP equivalent (World Bank 2022e).[32]

30 According to IQAir, during 2018-21, Georgia ranked as the seventh most polluted country in Europe after Montenegro, Armenia, Bosnia and Herzegovina, Serbia, North Macedonia, and Croatia. These estimates are based on sensors in addition to the national monitoring systems and may differ from official figures. The information is accessible at *iqair.com/us/world-most-polluted-countries*.

31 According to the stateofglobalair.org database.

32 In 2018, health expenditures for treating air pollution-related diseases amounted to GEL 120 million (UN 2021). Notably, ischemic heart diseases, stroke, and lung cancer account for 28 percent, 21 percent, and 4 percent of causes of death in Georgia (IHME 2019).

Other pollution challenges are also intensifying. For example, waste management practices remain poor (World Bank 2021a), causing rising surface water pollution and lead exposure for children, leading to an estimated loss of 3 percent of GDP equivalent today (Crabbe et. Al. 2020 and World Bank 2020a). Plastic and sewage pollution are also problematic in coastal and maritime regions, and plastic waste recycling levels remain behind target values.[33] In 2019, Georgia scored among worst countries globally for agricultural pollutants management according to the Sustainable Nitrogen Management Index.[34]

Georgians acknowledge the risks of climate change and environmental damages. Around 80 percent of Georgians consider climate change to be a serious problem for themselves and their family (compared to the ECA average of 77 percent), and over 84 percent of Georgians worry about air pollution, water pollution, deforestation, and sea pollution in their country today (11 percentage points more than ECA across these categories) (IPSOS 2022).

Challenges

This section discusses the challenges behind the trends above, including declining natural capital value and rising carbon emissions. Poor agricultural practices, poor water management, and inefficient land use (challenge #6) are some of the factors explaining declining agriculture land value. This section also discusses some challenges in terms of energy efficiency in key sectors that are witnessing increasing emissions: transport, industry, and residential (challenge #7). Finally, it also delves into the constraints preventing to untap Georgia's renewable energy generation potential (#8). Challenge #6 is persistent, while #7 and #8 are new challenges (not sufficiently discussed in the 2018 SCD).

Challenge #6: Unsustainable Agricultural Practices, Poor Water Management, and Inefficient Land Use

Agricultural productivity growth is constrained by fragmented farm size and low adoption of modern and sustainable farming technologies and practices. Georgia's agricultural yields remain significantly below the global average for nearly all major crops. Farm size makes a considerable difference in terms of productivity: in 2020, the production volume per worker per day in medium- and large-size agricultural holdings was over three times higher than in small holdings. In Georgia, 94.4 percent of the land plots have less than 2 hectares, compared to 45 percent in the European Union overall, and a large share of land remains in the hands of the state (World Bank 2022a). Small farms are less likely than larger farms to use modern farming practices that would enhance climate resilience, environmental sustainability, and commercial viability.

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33 Georgia has committed to recycling 50 percent of its plastic waste by 2025 and 80 percent by 2030 (Government of Georgia 2016).

34 Sustainable Nitrogen Management Index 2019 accessed through Yale EPI 2022. https://epi.yale.edu/epi-results/2022/component/snm. Georgia ranks 163rd out of 180 countries. The Sustainable Nitrogen Management Index (SNMI) seeks to balance efficient application of nitrogen fertilizer with maximum crop yields as a measure of the environmental performance of agricultural production.

In addition to fragmentation, gaps in registration and lack of adequate pricing of land hinder optimal and sustainable land use. The country's agricultural land is estimated to be around 2.8 million ha (excluding occupied territories and forest fund), 24 percent of which remained unregistered in 2021. Lack of secure property rights undermines efficient land use, as holders often prefer to leave the plots unused rather than renting or selling them. Of the registered agricultural land, 56 percent remains under state ownership. Over the past decade, only 2.5 percent of the auctions of state-owned land involved agricultural land. The functioning of land markets in Georgia is also subpar due to deficiencies in data availability and valuation. Meanwhile, the tourism industry is developing without adequate pricing of land and ecosystem services, leading to ecological damage that could have otherwise been avoided. Annual land tax contributions (for agricultural land) are too small and have many exceptions, hence they do not incentivize sustainable land use and landscape restoration.

Shortcomings in water management affect productivity and sustainability. The current irrigation tariff, which has remained unchanged since 2010, does not allow for cost recovery by the state-owned water utility, Georgian Amelioration (GA), which is unable to break even and receives 80 percent of its budget from the state (Vidal et al. 2022). Meanwhile, irrigation schemes are being degraded due to lack of adequate investments. To address this constraint, amendments to the Water Users Organizations Law have been adopted, and the regulator is working on a revised tariff setting methodology. Another challenge is posed by organizational and skills deficiencies that affect the operation and maintenance of reservoirs and irrigation schemes. For rainfed agriculture, factors preventing the optimization of agricultural productivity and ecosystem services such as biodiversity preservation and carbon sequestration include absence of integrated watershed management, limited coordinated efforts within the communities against land degradation, and issues with land rights, which are a barrier to investment. In terms of water supply services, coverage is much lower in rural areas,[35] infrastructure is old and in a dilapidated state, and lack of metering leads to wasteful consumption by many. In addition, water quality monitoring has not been consistent, and not all wastewater is collected, with just a modest share subject to treatment.

While prospects have improved, several constraints are holding Georgia back from reaching its agriculture exports potential. Limited integration between smallholder farmers and agri-businesses is a critical constraint in raising within-sector productivity growth in agriculture. The lack of farmer associations, cooperatives and business networks, limitations in the provision of farm advisory services and adequate irrigation services, and issues around compliance with sanitary and phytosanitary standards restrict Georgian agricultural producers' ability to fully benefit from their exposure to European markets (EBRD 2021b). There is a need to strengthen knowledge of modern technologies on side of the farms, as well as the institutional base for knowledge transfer including training of extension officers, food technologists, and agri-business advisors (World Bank 2022f). Know-how and investment in modern technologies will be key towards achieving both more sustainable and productive agriculture practices.

35 About 66.4 percent of the population has safely managed water supply services, with 84 percent population having safely managed services in urban areas and 54 percent population with basic services in rural areas. Sanitation coverage is much lower at 34% population.

Challenge #7: Inefficient energy use

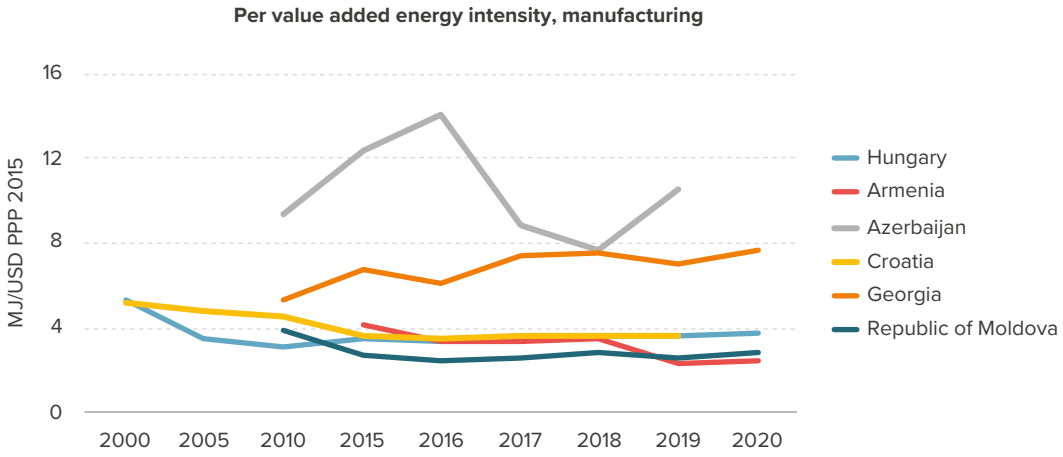
The transportation sector, the largest source of carbon emissions in Georgia, currently lacks the plans and incentives to green the sector. While Georgia has committed to hold GHG emissions from the transport sector to 15 percent below the 1990 level by 2030, that target is not sufficiently ambitious given the considerable drop in emissions following independence (back to Figure 17). Emissions in the transport sector are projected to increase by about 71 percent by 2030 under a reference scenario, and between 2015 and 2030, passenger activity is expected to increase by almost 60 percent and freight activity by 240 percent.[36] Georgia has introduced incentives supporting the adoption of electric and hybrid vehicles, whose current share is negligible. The introduction of emission quality standards on the import and production of vehicles, starting in 2024, is another positive development. However, current excise tax rates on oil products and motor cars and motorcycles are insufficient to shift the paradigm towards a greener transport sector. Other challenges include limited private sector financing in this area. Finally, while the authorities in Tbilisi and Batumi are expanding the offering of public transportation services, there is scope to further integrate urban and transport planning.

Deficiencies in the railway sector make it more difficult to decarbonize. Georgia's inland transport mode for freight has shifted toward roads over time. In 2005, 91 percent of the country's freight was moved by rail. In 2020, this share dropped to 45 percent while heavy trucks rose to 49 percent and light trucks to 6 percent. This situation has arisen partly due to insufficient investments in the railway sector over time, leading to old and energy-inefficient assets, as well as road transportation being cheaper for the users due to the absence of tolling (the cost of road assets is not being recovered in comparison to rail). Furthermore, increasing the share of passenger travel through rail has received limited focus until the recent attempt by the Government to approve the methodology for subsidizing Georgia Railways for losses made on passenger routes that are not economically viable.

Industry is a major source of emissions due to market failures and lack of an integrated approach to support greening of the sector. According to Georgia's Climate Change Strategy and Action Plan for 2030, the industry sector is among the largest in terms of carbon footprint (18 percent of national GHG emissions in 2015). The sector is to achieve a 5 percent emissions reduction compared to emissions projected under a reference scenario by 2030. However, the industry sector currently lacks the plans and regulations needed to support the achievement of this goal. Notably, the authorities submitted a new Law on Industrial Emissions to Parliament in January 2023 to prevent spillage into atmospheric air, water, and land resulting from industrial activities, as well as to prevent the generation of waste. While this law is expected to support the adoption of more efficient and cleaner technology, it does not specifically aim to curb carbon emissions. Within manufacturing, there are large differences in energy use at the firm level, which offers significant opportunities to reduce emissions through improved energy efficiency. On average, energy intensity of Georgian manufacturing firms is more than twice the level in

36 Georgia's 2030 Climate Change Strategy and 2021-2023 Action Plan (CSAP).

Figure 21. Georgian manufacturing firms use twice as much energy inputs as those in most peer countries



Source: IEA Energy Efficiency Database.

most comparator countries (Figure 21), and dispersion in energy use is significant, suggesting inefficiencies.[37]

The residential sector is also energy inefficient due to lack of regulation and incentives, and heavily reliant on unsustainable heating fuels. Buildings largely fail to meet the internationally recommended indoor temperature range for thermal comfort and human occupancy due to lack of insulation and poor, inefficient, and fossil-based heating technologies, mainly natural gas and firewood. Meanwhile, the wholesale price of natural gas delivered to residential consumers and used for electricity generation is US$150 per 1,000 m3 (or about EUR 0.013 per kWh), the lowest among countries covered by EUROSTAT.[38] Implicit fossil fuel subsidies aim to protect energy consumers, but they reduce incentives to invest in insulation and reduce consumption, and they harm the environment and slow down the energy transition. The Law on Energy Efficiency (2020) as well as the Law on Energy Efficiency of Buildings (2020) aim to remove barriers to improving energy efficiency, but gaps in implementation persist.

37 A forthcoming firm-level green growth diagnostic of manufacturing firms in Georgia highlights five findings regarding energy usage. First, there are large differences in energy efficiency across firms; improving efficiency to the level of median efficiency of similar firms in the same sector of activity would lead to reduction of consumption and emissions of close to 60 percent from the actual levels. Second, a decomposition of the source of energy consumption and emissions growth finds that structural transformation and market reallocation forces have played against reducing consumption, while average improvement in efficiency levels among firms have played a positive albeit smaller role in driving down consumption and emissions. Third, more productive firms tend to be considerably more efficient in terms of their levels of energy consumption, and there is some evidence of possible spillover effects to firms in the same location and subsector. Fourth, technological adoption and managerial practices explain a significant extent of variability across firms. Finally, the 50 percent increase in electricity prices in January 2021 led to firms becoming more efficient in energy use to try to regain some of the lost profits.

38 Georgia benefits from long-term natural gas purchase agreements with Azerbaijan at a price that is significantly below market prices for the region, but the tariffs for residential consumers cover just 25 percent of the supply cost.

Challenge #8: Stalling Renewable Energy Development

Georgia has large untapped renewable energy generation potential, including hydroelectric, wind, solar power, and geothermal heat. While 22 percent of the estimated hydropower potential is currently utilized (IEA 2020b), only about 1.4 percent of its wind energy generation potential is installed now. Georgia's solar energy potential amounts to approximately 1.5 GW. However, despite over 200 private sector projects (amounting to 4,360 MW) at various stages of development, the commissioning of new renewable power capacity has stalled since 2015. The government stopped the previous (uncompetitive) support scheme to the sector due to the mounting fiscal risks, and investments have not been bankable. Regulatory uncertainty and insufficient grid access have also hampered development. To address these obstacles, the authorities have adopted a new contract for difference support scheme that integrates renewable power into a new competitive day ahead wholesale electricity market, awards government subsidies competitively, and is expected to better balance risks between the government and private investors.

Increasing the share of renewable energy in final energy consumption will depend not only on the electricity sector, but also largely on transformation of the heating and transport sectors. Space and water heating mainly depends on natural gas and fuel wood and, to a lesser extent, on electricity. Investments in increasing the energy efficiency of buildings and the introduction of sustainable heating (geothermal, heat pumps, solar thermal) would be critical to decrease energy demand growth and increase the share of renewable energy. This would require large public sector support schemes, including providing incentives for private households and commercial entities to invest in new technologies and building retrofits. The low price of natural gas is a key obstacle, since the payback times for these investments are expected to be very long.

Other resilience aspects

This section discusses other challenges whose relevance has increased in recent years due to external or internal developments. Challenges include vulnerabilities in the response to shocks (#9) and deficiencies in rule of law and accountability (#10).

Challenges

Challenge #9: Vulnerabilities in the response to shocks

As global uncertainty and the frequency of shocks increase, building resilience has become paramount. As a small, open economy, Georgia has significant exposure to external shocks, which are being exacerbated by a rapidly changing global environment characterized by high levels of uncertainty. The COVID-19 pandemic exposed vulnerabilities in the social protection and healthcare systems. Further monetary tightening in advanced economies and turmoil in the region could hinder growth, put pressure on the currency, and increase debt levels and financing needs. Another potential source of risks is the recent surge in money inflows from Russia and the relocations of Ukrainian, Russian, and Belarusian citizens. While such inflows could be seen as an

upside risk, abrupt reversals or sudden stops could affect Georgia's external position. In addition, there could be negative impacts from these inflows, as they could put pressure on public services and higher food and rental prices are already affecting the most vulnerable. According to Geostat, the minimum level of income necessary to meet basic needs increased by 13 percent during the first six months of 2022, while the number of registered socially vulnerable households grew by nearly 6 percent. Recent catastrophic earthquakes in neighboring Türkiye and the landslide in Shovi raise questions about disaster risk preparedness.

Georgia has a sound macroeconomic framework that can help mitigate shocks, but dollarization exacerbates exchange rate associated risks. Georgia has been running significant current account deficits, with the associated external liabilities. Georgia's exposure to the external shocks discussed above makes it vulnerable to rapid exchange rate depreciation, which could harm financial stability, especially in the context of a highly dollarized economy (IMF 2022b). In fact, despite some reduction over the past decade, dollarization of deposits has remained high, at 56.2 percent at the end of 2022. Dollarization and a high exchange rate pass-through further exacerbate vulnerability to currency depreciation, as the country is dependent on imports (including of food), more than three quarters of total public debt is denominated in foreign currency, and households and firms are also exposed to currency mismatches. Georgia's inflation targeting regime, flexible exchange rate, and fiscal rule are policy tools proved to be effective against shocks and serve as mitigating factors, while the country still requires keeping external exposure in check and working to reduce dollarization.

In addition, significant fiscal risks stem from the possibility that contingent liabilities associated with SOEs might materialize, impacting compliance with Georgia's fiscal rule and narrowing the available fiscal space. Contingent liabilities stemming from inadequate SOE governance could hurt public debt dynamics and growth. While just one out of six SOEs operate at a loss, lower than the share in other countries in the South Caucasus and Central Asia, the overall negative return on assets was worse than in peers (Gigineishvili et al. 2023). One of the reasons for sector inefficiency is the lack of adequate corporate governance and accountability. To address this challenge, Georgia has initiated a SOE Governance reform supported by the IMF Stand-by Agreement (IMF 2022a) and the World Bank through the Green and Resilient Georgia Development Policy Operation series. As envisaged in the SOE Strategy approved in 2022, a draft SOE framework law is under preparation. The adoption and implementation of the law is seen as a crucial step to incentivize SOEs to operate under commercial principles, level the playing field vis-à-vis the private sector, and help reduce their associated fiscal risks.

While during the COVID-19 crisis the response worked relatively well, a series of improvements in the targeted social assistance are needed. Of the GEL 918.1 million spent on social protection emergency measures, over one-third (GEL 382.7 million) was spent on energy subsidies, which have the advantage of rapid delivery but the disadvantage of being imperfectly targeted, regressive, and incentivizing overconsumption of energy. Targeted social assistance should be the primary crisis response mechanism, but it suffers from several gaps. First, it lacks the capacity to predict the degree of vulnerability to sudden shocks, due to "static" targeting rules according

to which vulnerability re-assessment is done every four years. Second, the capacity of the existing Proxy Means Text formula to identify the extreme poor has been deteriorating over time by design (Carraro, Honorati, and Sormani 2019). Third, the procedures for assessing new applicants are slow (five months between the application and the first payment to the beneficiary), which limits the shock responsiveness of the system, although progress has been made recently leveraging the digitalization of business process in public administration. There are also gaps in social insurance (World Bank 2022b). On the health sector side, the systems Georgia has in place enabled a prompt response to the pandemic, although the overall COVID-19 vaccination rate remained relatively low. Further strengthening preparation towards potential future pandemics will remain key.

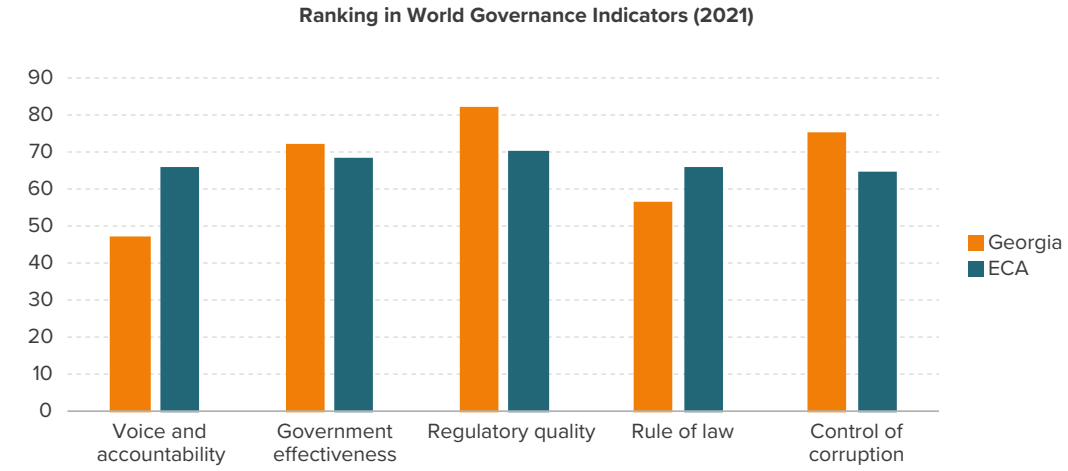
Shortcomings in disaster and climate risk monitoring and management and the lack of a holistic disaster risk financing framework hinder resilience building efforts. For example, Georgia lacks a national seismic risk assessment which could be used to inform public and private strategies for earthquake risk reduction across the country, including risk reduction investments and policies to strengthen building codes and code enforcement. Georgia also has no unified hazard, exposure, and risk data portal, including climate projections and expected impacts across sectors and assets, and it lacks planning capacity to ensure climate resilience of existing assets by retrofitting as well as consideration of resilience in asset management systems and public investment decisions, both on the national and local levels. The authorities have put in place several instruments such as a contingency budget and reserve funds to finance the costs of disasters and climate shocks and/or provide fiscal support to households and farmers. However, Georgia lacks a holistic approach to cost-efficient financial management of the impacts of disasters. In addition, lack of data availability poses a constraint to the development of public and private disaster risk insurance products and finance for adaptation.

Challenge #10: Rule of law and accountability gaps

Georgia has made progress in terms of regulatory quality and government effectiveness, and is ahead of the regional average (Figure 22). Georgia continues to align legislation with the EU Acquis Communautaire, which is contributing to the improvements in regulatory quality. Government effectiveness is improving as well, partly thanks to its strong public financial management systems and increased budget transparency and oversight. Georgia's central administration is a top performer according to the Public Expenditure and Financial Accountability (PEFA) assessments, although there are deficiencies when it comes to public financial management at the municipal level. Georgia has adopted a new Public Procurement Law that is harmonized with EU Directives and is working on the implementing regulations and guidelines, as well as the needed upgrade of the current electronic procurement system to be aligned with the new law, which comes into force in January 2025.

Georgia continues to lead in corruption control efforts. Building on the reforms introduced over the past two decades, Georgia has been successful in significantly reducing red tape and the prevalence of corruption within the state bureaucracy. Georgia ranks ahead of several EU members and EU candidate states in the Trace Bribery Risk Matrix and the Integrity Index 2021 of

Figure 22. Georgia is outperforming ECA in government effectiveness, regulatory quality, and control of corruption



Source: Worldwide Governance Indicators.

the European Research Centre for Anti-corruption and State-Building, among others. According to the 2019 World Bank's Enterprise Survey, companies collaborating with the Georgian government experience lower levels of corruption compared to the ECA average.[39] The Corruption Perception Index of Transparency International 2022 ranks Georgia 41st out of 180 countries in the world. To further enhance control of corruption, an Anti-Corruption Agency was created in 2022 to consolidate anticorruption responsibilities previously scattered among several law enforcement agencies. International partners have recommended to strengthen the agency to address high-level corruption cases (European Commission 2022; OECD 2022a).

Compared to other dimensions, Georgia lags in voice and accountability. According to the Worldwide Governance Indicators, Georgia ranks in the 47th percentile in voice and accountability. One bright spot is that Georgia ranks first in the world in transparency of the budgetary process, and fourth in public participation. Georgia's civil society is perceived as participative with some degree of citizen engagement in policymaking, while limitations to consensus building and increased political polarization have been noted in recent years (Bertelsmann Stiftung 2022). Georgia holds regular and competitive elections and international observers have assessed elections as largely fair and free, although the overall framework for campaign financing, including high spending limits, puts smaller and new parties at a disadvantage (OSCE 2022). The media environment is pluralistic but partisan. Although free expression is broadly respected, watchdogs have denounced cases of harassment of journalists. In July 2021, anti-LGBT+ rioters broke into the offices of Tbilisi Pride, which was organizing the city's LGBT+ pride parade, and injured media

39 Business owners and top managers in 581 firms were interviewed between March 2019 and January 2020. https://www.enterprisesurveys.org/en/data/exploreeconomies/2019/georgia#corruption

workers covering the event, rising questions about the consistency of protection of civil liberties (Freedom House 2022).

The judiciary suffers from unreasonable delays and insufficient accountability, and enforcement of regulation is perceived to be uneven. Georgia ranks first in Eastern Europe and Central Asia region in the World Justice Project's Rule of Law Index,[40] albeit its score has declined in recent years (from 0.65 in 2016 to 0.60 in 2022). Looking at the sub-dimensions of the index, Georgia ranks highest in Absence of Corruption in government (31 among 140 countries participating in the index) and in Order and Security (45/140), and lowest in Constraints on Government Powers (69/140) and in Civil Justice (68/140).[41] According to the World Justice Project, the judiciary suffers from unreasonable delays and improper government influence. There is limited judicial accountability and delays in courts and dispute resolution affects business performance and investment attraction. There are significant gaps as well in terms of transparency. The Parliament of Georgia has not adopted legislative amendments for ensuring the accessibility of court decisions, which significantly undermines the rule of law in the country. When public information is requested, common courts are not guided by the constitutional standard and they do not provide the full text (without redacting personal data) of the decision, and common court judgments are not being published (IDFI 2021). While Georgia has a state-of-the-art legal and regulatory framework in most sectors, stakeholders argue that enforcement is uneven.

40 The region defined by World Justice Project does not include EU member states in Eastern Europe.
41 https://worldjusticeproject.org/rule-of-law-index/country/2022

3 PRIORITIES GOING FORWARD

High-Level Outcomes and prioritization of policy objectives

Corresponding to the ten challenges discussed above, this Systematic Country Diagnostic Update has identified ten policy objectives for action, which are derived from the analysis as well as internal and external discussions. The challenges discussed in part II of this report represent constraints to maintaining strong growth together with inclusive and sustainable development in the next 5-10 years. The proposed policy objectives are not intended to be a comprehensive set of areas for government action. Areas of more near-term concern are discussed in the report but were not identified as priorities in this SCD.

The ten policy objectives contribute to four High-Level-Outcomes (HLOs) necessary to attain poverty reduction and shared prosperity in Georgia. These HLOs are (i) enhanced creation of good quality jobs by boosting productivity; (ii) improved and more equitable human capital; (iii) enhanced readiness to climate change and the green transition; and (iv) improved resilience to shocks. The HLOs, if achieved over the next five to ten years, would mark an improvement in the wellbeing of the population, particularly the poorest and most vulnerable. The HLOs are complex and interrelated, with policy objectives contributing to more than one HLO, as illustrated in the table below. For example, improving land is expected to contribute towards higher agriculture productivity and enhanced livelihoods (i), a more sustainable development (iii), and improved resilience against shocks (iv). Improving learning outcomes would contribute to human capital formation (ii) and better and more productive jobs (i). The relationships highlighted by Table 2 do not constitute an exhaustive account of the potential cross-linkages between HLOs and policy objectives. The primary HLO to which a policy objective is contributing is highlighted as an orange tick mark.

TABLE 2. TEN PRIORITIES HAVE BEEN FILTERED ACCORDING TO THEIR IMPACT ON THE TWIN GOALS AND URGENCY OF REFORM

Policy objetive	HLO i	HLO ii	HLO iii	HLO iv	Prioritization filters		Priority
	Enhanced creation of good quality jobs by boosting productivity	Improved and more equitable human capital	Enhanced readiness to climate change and the green transition	Improved resilience to shocks	Direct impact on twin goals	Urgency	
1. Reduce labor market frictions and increase participation	✓	✓			✓		High
2. Strengthen the quality of education and skills provision	✓	✓			✓	✓	Top
3. Strengthen primary care service provision and healthcare spending efficiency		✓		✓			Medium
4. Facilitate access to finance, digitalization, and innovation	✓					✓	High
5. Enhance connectivity and logistics to foster trade	✓						Medium
6. Improve land use as well as adaptation to climate change	✓		✓	✓	✓	✓	Top
7. Invest in energy efficiency (in transport, industry, and households)	✓		✓			✓	High
8. Support renewable energy development			✓				Medium
9. Strengthen fiscal risk management, safety nets, and disaster risk management		✓		✓			Medium
10. Improve enforcement and predictability of laws and regulation				✓		✓	High

Source: authors' elaboration.
Note: the primary HLO to which a policy objective is contributing is highlighted in orange (just one primary HLO per objective).

The direct impact on twin goals has been considered to prioritize policy objectives. Policies that directly contribute to increasing the income generating capacity of the poor and vulnerable are selected under this prioritization filter, which also considers environmental sustainability concerns. Policies aimed at reducing labor market frictions and increasing labor force participation (#1) are expected to have a direct positive contribution to the income generating capacity of those most in need, since wages and salaries have traditionally been the main driver of poverty reduction. Enhancing learning outcomes and skills while reducing inequities in the provision of education (#2) is also key to provide opportunities for socioeconomic mobility. Improvements in access to land as well as sustainable land use (#6) are expected to contribute to poverty reduction and shared prosperity by increasing the number of people with a land asset (and title) and by supporting climate-smart agriculture, which is expected to help both boost productivity as well as protect natural capital and enhance adaptation capabilities, for a more livable Georgia.

In addition, an *urgency* filter has been applied to the prioritization, signaling areas in which further reform momentum is needed. This *urgency* criterion refers to areas for action that are critical to attain HLOs, and in which reforms are lagging. Drawing from internal discussions as well as consultations with non-government stakeholders, five policy objectives have been assigned a tick mark under this urgency filter. Critical reforms in terms of education (#2), land markets (#6), and the justice sector (#10) are long standing (unlike in other areas such as healthcare, renewable energy development, or macroeconomic management, where reforms are underway). In addition, Georgia aspires to become a high-income economy, and with the climate transition in sight, supporting the development of capital markets and innovation (#4), as well as the adoption of green and efficient technologies (#7) becomes increasingly urgent. Annex 2 on results from consultations with stakeholders provides further insights.

To strengthen the quality of education and skills provision (#2) and to improve land use as well as adaptation to climate change (#6) come out as top-level priorities for Georgia. Top priorities are those with tick marks in both the twin goals and urgency filters. High-level priority policy objectives, featuring only one tick mark, include to reduce labor market frictions and increase participation (#1), to facilitate access to finance, digitalization, and innovation (#4), to invest in energy efficiency (#7), and to ensure law enforcement and predictability (#10). The other four policy objectives are considered of medium-level priority.

Conclusion and way forward

In the face of growing uncertainty, it is imperative for Georgia to keep the reform momentum. Despite a robust growth performance and a well-deserved reputation for economic reforms, Georgia faces internal headwinds (population aging) and external megatrends (prominence of geopolitics, digitalization, climate change) that will affect its development path. Georgia has kept improving its legislative framework in recent years, yet implementation and enforcement efforts are often uneven, and some of the most challenging reforms are still pending (e.g. land markets, judiciary). The EU accession process offers unique opportunities to boost the reform momentum and get ready to become part of a club that has succeeded in bringing convergence and prosperity to its members. While the motto of the 2018 SCD was “From reformer to performer”, this report argues that there is a need to double down on reform efforts, while also ensuring adequate implementation. The remainder of this section highlights key areas for reform and action, structured around the four HLOs necessary to ensure growth, inclusion, and sustainability in Georgia going forward. Table 3 at the end of this section summarizes the policy options associated to the challenges and policy objectives identified in this report.

There is a need to create more and better jobs to accelerate progress in the pursuit of the twin goals. More jobs are needed to reduce unemployment and ensure a better return to human capital investments. Importantly, better jobs are needed to absorb the well-educated and require from an expansion of the modern, high value-added sector of the economy. But job creation is also necessary in more basic occupations outside agriculture to facilitate reallocation of labor away from subsistence farms and to provide opportunities for many of the currently unemployed

who are less educated and skilled (World Bank 2022a). Realizing this requires from (a) demand-side interventions to remove constraints to firm growth and productivity (discussed below); (b) supply-side interventions to address the issues of poor learning outcomes and skills mismatches; (c) active labor market policies and other measures aimed at overcoming information asymmetries, including improvement of intermediation channels. Finally, job creation should be combined with measures aimed at (d) fostering labor force participation, particularly among women, including by providing childcare support and actively monitoring and reporting gender pay gaps (#1). In the face of an aging population, capitalizing on underemployed female human capital can be an important strategy to help unlock Georgia's potential by increasing the contribution of labor to growth.

Faster productivity increases are a prerequisite to boosting growth as well as accelerating and sustaining job creation. As discussed in Section II, Georgia's productivity growth performance has been mixed, with a rather volatile TFP contribution to growth at the aggregate level and stagnant TFP trends at the firm level. Additional reform efforts aimed at strengthening both the within-firm and reallocation (between-firm) components of productivity growth will be critical to realize Georgia's structural transformation potential and prevent it from being trapped at middle-income levels over the medium term. Facilitating access to finance, digitalization and innovation (#4) will be key to boost within-firm TFP and the ability of firms to growth; in addition to firms, this will help unlock the productive potential of individuals as well. Addressing connectivity and logistics bottlenecks (#5) is necessary to boost the competitiveness of domestic products, enlarge the market, and facilitate integration in value chains, with the potential of importing inputs, technology, and knowledge more effectively. Meanwhile, improving land and water use can help boost the productivity of agriculture while also facilitating structural transformation as opportunities are created in "modern sectors". Energy efficiency improvements in transport, industry, and other sectors (#7), which will require adopting new technologies, are expected to generate some of those opportunities both in terms of jobs and productivity. Improving law enforcement and predictability (#10) is needed to address what is one of the biggest hurdles to firm operation and foreign direct investment attraction in Georgia.

Strategic regional infrastructure projects could unlock new growth opportunities. Given Georgia's strategic location, the prospective returns from improved connectivity are considerable. Russia's invasion of Ukraine has already resulted in some trade diversion from the Northern route (through Russia) to the so-called "Middle Corridor" (through Central Asia). Such trade, when combined with volumes that are generated in the South Caucasus and the Central Asia Republics, enhances the prospects of the Middle Corridor as a viable trade route and opens opportunities for Georgia to participate more in select regional value chains and value adding logistics services (related to #5). This requires significant improvements in infrastructure and trade facilitation across several countries along the corridor, which would lead to increased commerce from which Georgia and other countries would benefit. Georgia is already taking the lead in studying the feasibility of building submarine electricity and telecom cables through the Black Sea to Romania and stands to benefit from increased infrastructure and market integration with the European Union, including to export clean energy (#8). Additionally, there is an opportunity to partner with Armenia and Azerbaijan to develop connectivity and data transit corridors between Europe and Asia, providing an alternative route for inter-regional connectivity.

Improving human capital outcomes and reducing inequities is necessary to ensure Georgia fulfils its potential. The contribution of human capital to growth in Georgia has been limited, with low learning outcomes and high incidence of NCDs as key factors impacting on the human capital index and the productive capacity of Georgians. Strengthening the quality of education (#2) is top priority and requires from strengthening the governance of the sector, as well as teacher formation and accountability. There is also a need to reform VET to make it more flexible and responsive to the needs of employers, as well as better connected with firms, including by building on the recent establishment of the Skills Agency. In healthcare (#3), the direction of reform is clear and there is good momentum for implementation (including, for instance, of reference pricing for medicines); to address NCDs, it will be important to finalize and implement the Primary Health Care Roadmap.[42] Improvements in social protection and safety nets (#9) will be necessary to shield human capital gains.

Georgia is well placed to benefit from green development yet needs to first reverse the current inertia of emissions intensive growth and unsustainable resource use. On the climate adaptation side, there is a need to introduce more sustainable agriculture practices, improved water management, and integration of climate risk assessments into strategic land use planning processes (#6). On the climate change mitigation side, implementing the competitive power market and the auction scheme for renewable energy and assessing options to replace oil and gas with renewable sources will be key (#8). In transport, industry, and housing (#7), enforcement of energy efficiency regulation and emissions standards will need to be coupled with incentives and financing to invest in cleaner and more efficient technologies and materials. At present, Georgian firms lag their peers in adopting green technologies and practices. Rapid cost declines for low-carbon technologies driven by the net-zero transition in major markets offer new opportunities for technological upgrading or 'leapfrogging' in Georgia, especially considering its proximity to the EU (Box 4). Finally, investments in human capital are key to increase adaptative capacity vis-à-vis climate change as well as the green transition.

Finally, increasing resilience against shocks is necessary to protect development gains amidst an increasingly uncertain setting. Georgia, a small open economy, is exposed to multiple shocks, which include geopolitical swings, migration and displacement, slowdown in trading partners, downturns in global financial markets, pandemics, climate events, and natural disasters. Going forward, strengthening risk management and safety nets (#9) is crucial to mitigate the impacts of shocks on the poor and vulnerable. Among other measures, this requires from strengthening SOE governance to address potential vulnerabilities on the fiscal side; improving the adaptiveness and the ability to respond to shocks of the social protection system, including by integrating information repositories; and strengthening disaster preparedness and adopting and implementing a disaster risk finance framework, including by improving national budgeting capacities to be risk and resilience responsive, promoting public-private partnership to crowd in expertise and capital

42 Implementation of the Primary Health Care Roadmap entails revising and clarifying the standard health benefits package and defining the clinical pathways for conditions such as heart conditions and Type 2 diabetes, which could be appropriately managed at primary and hospital levels of care; financing of the primary health care package; requirements for health care providers; and governance and institutional arrangements for primary health care.

in the private sector, and developing innovative risk financing instruments. The strengthening of the healthcare sector (#3), including primary care and pandemic preparedness, as well as efforts towards climate adaptation (#6) are also necessary building blocks towards buttressing development gains in Georgia. Finally, further strengthening rule of law and citizen engagement (#10) would enhance social cohesion.

BOX 4. OPPORTUNITIES AND CHALLENGES FOR GEORGIA IN NAVIGATING KEY MEGATRENDS

Climate transition

Global efforts at both climate change mitigation and adaptation are critical and will remain so for a long period to come. Many countries and companies have announced commitments to achieve zero-carbon by 2050. This transition now extends beyond the energy sector to other sectors, including agriculture, industry, and transportation, which will also need to reduce emissions. The energy transition will have significant implications, including reduced demand for fossil fuels, particularly coal, and increased demand for the metals and minerals required for renewable energy generation. Low-carbon technology is typically significantly more metals-intensive than fossil fuel energy.

The global climate transition is expected to have ripple effects on Georgia's economy through trade, investment, and technology availability, with important implications for exports and job creation. The net-zero transition globally also offers new manufacturing and export opportunities, while low-carbon competitiveness could become increasingly important for maintaining the existing manufacturing base.

As a metal exporter and energy importer, Georgia should explore the potential for environmentally friendly mining or producing metals and other goods with low-carbon intensity via the use of renewable energy. Georgia's future green competitive strengths could also lie in sectors with proximity to current export sectors, including waste and water management, low-carbon transport, and recycling. Nature-based sectors, including tourism, would benefit from moving towards greener and more sustainable development.

A low-emission model would allow the country to take advantage of the growing market for emissions-free or low-carbon products, which will require from greening the transport and industry sectors. Given the large share of agriculture in the economy, it will be also key to make the sector climate smart. Overall, investing in green infrastructure projects, offering incentives for environmentally sustainable technologies, and tightening energy efficiency standards can buttress long-term growth and contribute to climate change mitigation and adaptation.

BOX 4. CONTINUE

Digitalization and automation

Digital technologies allow firms to reach a wide range of people quickly and to scale up operations to a global level far more rapidly than before. The accelerated adoption of digital services caused by the pandemic could help increase the returns to investing in human capital and bolster future productivity growth. But technologies also carry risks. Alongside shifting globalization patterns, changing technologies (i.e., advanced robotics, industrial automation, and 3-D printing) have brought the feasibility of manufacturing-led development into question (Hallward-Driemeier & Nayyar, 2018). The benefits and risks of digitalization became especially visible during the pandemic, as it helped many individuals avoid some of the economic consequences of the pandemic through telework or distance education. However, those without access to the internet or without the skills needed to leverage digital technologies have been less fortunate.

Georgia's economy is increasingly being digitalized; however, businesses and households remain at risk of being excluded from new opportunities or displaced by technologies. At the macro level, ICT investments have strong spillovers into demand and jobs. One million Georgian Lari (GEL) of additional demand for the ICT sector was found to generate GEL 1.45 million in revenues and GEL 450,000 of investment in the economy, while creating 22 full-time-equivalent jobs (ISET 2021). In addition, strong backward and forward linkages suggest a broad-based effect of digitalization. However, the widespread adoption of basic ICT tools (e.g., computers and Internet) across Georgian companies has not been accompanied with the uptake of more sophisticated technologies, such as e-commerce, electronic invoicing or other software. Without upgrading, the Georgian economy could remain concentrated in the production of low-tech, labor-intensive, commodity-based tradeable goods, sold to small, regional markets at low margins. On the jobs side, the immediate pressures from automation are less acute, as Georgia appears to have a smaller share of its employment in professions that are more easily automated. Yet, even basic occupations are becoming more demanding and increasingly require digital skills, something that many Georgians are lacking. A digital agenda that targets skills development, addresses access and quality gaps, and facilitates digital technology adoption can ensure that most Georgians benefit from the digital transformation. This may require from revamping the institutional architecture and coordination mechanisms to lead the digital economy agenda.

Source: adapted from World Bank 2022a.

Analytical Gaps

While producing this report, six knowledge gaps have been identified, to be addressed in forthcoming research. Out of the five knowledge gaps identified in the 2018 Georgia SCD, three of them have been analyzed in subsequent studies: socioeconomic mobility (Fuchs et al. 2019) and informality and detailed firm-level productivity analysis (World Bank 2022a). The gaps around quality of health care and unit cost of health care services provision as well as around constraints to competition and weaknesses in the judicial systems have also been partly addressed. Newly identified knowledge gaps to be investigated in future studies include (i) demand- and supply-side constraints to quality job creation in Georgia; (ii) analysis of in- and out-migration flows and remittances; (iii) assessment of the implications of the green transition for jobs and skills; (iv) gaps in agricultural logistics, extension services, and research; (v) surveys of the trajectories followed by small farmers after they have sold their land; and (vi) interventions to address GHG emissions from the transport sector, including carbon taxation.

TABLE 3. SUMMARY OF IDENTIFIED CHALLENGES, POLICY PRIORITY AREAS, AND POLICY OPTIONS

Observed challenge	Policy priority areas	Policy options
Declining working age population, high NEET rates and inactivity rates among women. High unemployment rates	#1. Reduce labor market frictions and foster participation	**Labor force participation:** Improve the quantity and quality of childcare facilities and facilitate part-time female employment and flexible working arrangements Improve labor market intermediation channels, both public and private, including by leveraging technology Enhance the effectiveness of professional training (re-skilling and upskilling) to facilitate the labor market integration of youth, women and other vulnerable jobseekers and job-to-job transition
Low learning and skills development outcomes	#2. Strengthen the quality of education and skills provision	Improve the governance, accountability, and systems of the education sector Strengthen the teacher force and assessment practices Enhance the school learning environment and targeted programs, particularly in disadvantaged areas Develop a system to collect, monitor and disseminate information on skills and occupations in demand based on multiple data sources and on a national taxonomy of skills Further strengthen the Skills Agency and enhance the responsiveness of the VET education system by incorporating the feedback from employers into the program and curricula design
High NCDs incidence and still-high OOP expenditure despite improvements	#3. Strengthen primary care service provision and healthcare spending efficiency	Adopt and implement the Primary Health Care Roadmap (to address NCDs) Continue to expand the use of reference pricing to cover more medicines and further reduce OOP expenses and initiate the use of Managed Entry Agreements for medicines

TABLE 3. CONTINUE

Observed challenge	Policy priority areas	Policy options
Stagnant productivity growth at the firm level	#4. Facilitate access to finance, digitalization, and innovation	**Access to finance:** Provide support to diversify the sources of finance (including to digital financial services and Fintech, risk capital, and green finance) and strengthen financial infrastructure **Innovation, technology adoption and firm capabilities:** Reform business support programs (design, criteria, implementation) to ensure alignment with priorities (adoption of digital and green technologies) and monitoring of results Implement training programs to improve managerial and organizational capabilities, and business acumen among entrepreneurs and managers; foster knowledge sharing **Competition:** Enforce the upgraded regulation for competition (merger control, market monitoring), including by providing adequate resources and powers to the competition authority **Digitalization:** Establish an entity / the institutional structure to lead the digital development agenda (data infrastructure, digital skills, etc.)
Unsophisticated exports and limited participation in global value chains	#5. Enhance connectivity and logistics to foster trade	**Logistics:** Modernize warehousing and distribution by establishing an Integrated Logistics Center in Tbilisi and promoting private investment Improve last-mile multimodal connectivity at Poti and Batumi ports and ensure required capacity additions at maritime ports (including deep-water facilities) **Transport:** Modernize and commercialize Georgian Railway Ensure adequate maintenance of the highway network together with financial sustainability
Low agriculture productivity and declining natural capital value	#6. Improve land use as well as adaptation to climate change	**Agriculture:** Incentivize adoption of modern technologies and practices among farmers to boost profitability and resilience Support private-sector-led agriculture value chain development **Water:** Move towards cost recovery and improve water and irrigation management **Land:** Fully implement the reform of the land registry and introduce systematic mass valuation of land plots **Adaptation:** Integrate climate risk assessments into strategic land use planning processes, including by improving data availability and establishing monitoring and evaluation systems Support implementation of nature-based solutions for resilience building, such as sustainable forest management
Higher energy intensity than peer countries	#7. Invest in energy efficiency (in transport, industry, and households)	Ensure establishment of public and commercial training, testing, and certification centers for energy efficiency Develop sustainable and scalable financing mechanisms for investing in energy efficiency Implement the Industrial Emissions law and ensure enforcement through inspections Consider increasing excises on gasoline and taxes on older vehicles Develop an e-mobility strategy and accompanying regulation

TABLE 3. CONTINUE

Observed challenge	Policy priority areas	Policy options
Low (and stagnant) share of non-hydropower renewables and increasing reliance on imports	#8. Support renewable energy development	**Fiscal risks:** Improve SOE Governance by adopting landmark framework law **Safety nets:** Integrate social protection information systems to better identify and monitor sources of vulnerability **Social insurance:** introduce unemployment insurance and develop alternative insurance mechanisms for informal workers **Disaster risk management:** Adopt and implement modern building codes (Eurocodes with National Annexes) Enhance weather and climate forecasting capabilities and implement modern early-warning services Adopt and implement a disaster risk financing framework, including by crowding in private sector expertise and capital
Declining rule of law and citizen engagement	#10. Improve law enforcement and predictability	**Justice:** Adopt backlog reduction plans for civil and commercial litigious cases older than two years (currently about one-fifth of the pending cases) Leverage ICT deployment to improve access, transparency, and efficiency of the judiciary, including by publishing court decisions. Strengthen the enforcement of court decisions through better accessibility of both public bailiffs and private enforcement officers and timeliness in implementing case proceedings **Consultations / citizen contribution to regulation:** Strengthen national level grievance mechanisms and implement open government commitments

Source: authors' elaboration.
Note: the primary HLO to which a policy objective is contributing is highlighted in orange (just one primary HLO per objective).

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Annexes

Annex 1. Growth accounting exercise

The purpose of the Growth Accounting exercise is to determine the drivers of output growth in Georgia. Specifically, real GDP growth is decomposed into the contributions of factor inputs (capital, labor and human capital) and a residual. The contribution of residual growth can be interpreted as increase in GDP that is unexplained by observed changes in factor inputs. Residual growth is also known as Total Factor Productivity (TFP) and represents the increase in those unobservable factors (which could include changes in technology, for example).

The decomposition exercise relies on Solow Growth Accounting model, which is adjusted for employment and participation rates. The growth accounting equation takes the following form:

$$Y_t = A_t K_t^{\alpha} H_t^{1-\alpha} \quad [1]$$

where

$$H_t = h_t L_t^* \quad [2]$$

$$L_t^* = L_t * e_t * p_t \quad [3]$$

$$h_t = \exp(\varphi S_t) \quad [4]$$

$$K_t = (1-\delta)K_{t-1} + I_t \quad [5]$$

and variables are defined as

Y_t = GDP in year t

A_t = Total factor productivity in year t

K_t = Capital stock in year t

I_t = Investment in capital in year t

δ = capital depreciation rate

α = Income share of capital

H_t = Estimated human capital adjusted for employment rate and participation rate in year t

L_t^* = Labor force (population 15-64) adjusted for employment rate and participation rate in year t

p_t = Labor participation rate in year t

e_t = Employment rate in year t

h_t = Estimated level of human capital per unit of labor input in year t

φ = Return to education (%)

S_t = School year expectancy in year t

Investment in capital is based on gross fixed capital formation (GFCF). Labor force is measured as the number of people between 15-64 that are part of the labor force. The labor force participation rate is calculated as the ratio of labor force to total population between 15-64, and the employment rate is the share of employed people in total labor force. Finally, school year expectancy is defined as the average number of completed years of education of the population in a given year.

The dataset includes annual data between 2010-2021. Labor force, labor participation and employment rates are retrieved from National Statistics Office of Georgia (Geostat), average years of schooling is sourced from UN's Human Development Indicator, while data for GDP and gross fixed capital formation came from the World Development Indicators.

The model requires calibrating a few parameters. Specifically, income share of capital (α) is set at 40 percent, while return to education (φ) is set at 7 percent. Capital depreciation rate (δ) is assumed to be 6 percent.

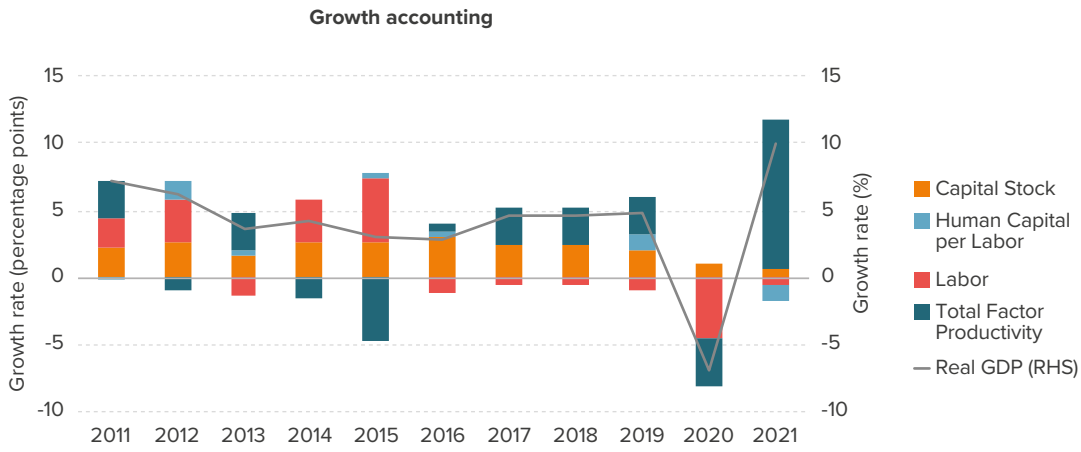
The contribution of total factor productivity (TFP) is calculated as a residual and it shows output growth not explained by growth in capital, adjusted labor or human capital per labor. The calculation of TFP growth is based on the following equation:

$$\Delta \ln A = \Delta \ln Y - \alpha \Delta \ln K - (1-\alpha)\Delta \ln L^* - (1-\alpha)[\varphi \Delta S] \qquad \text{[eq. 5]}$$

Growth accounting results show that, on average, physical capital explained half of Georgia's real GDP growth in 2010-2021. The contribution of capital to growth has been relatively robust. In contrast, the contribution of human capital and labor to growth has been limited and occasionally negative, while the contribution of TFP has fluctuated considerably over time, particularly during crisis periods (Figure A.1). Similar results are obtained when using alternative parameters based on the international literature,[43] as well as when using *expected years of schooling instead of average years of schooling*.

43 Alternative specification: α=1/3, δ=3.6%.

Figure A.1. Growth accounting results under baseline parameters



Source: World Bank staff calculations.

Robustness check

In order to ensure the robustness of the results, we also tested an alternative method, which is based on OECD's methodology for measuring TFP growth in Singapore[44]. This approach decomposes GDP growth into following three components – capital, labor and TFP:

$$ln\frac{y_t}{y_{t-1}} = \bar{\theta}_{K,t} ln\frac{K_t}{K_{t-1}} + \bar{\theta}_{L,t} ln\frac{L_t}{L_{t-1}} + TFP_{t-1,t} \quad [1]$$

where

$Y - real\ GDP\ at\ market\ prices$

$K - net\ capital\ stock$

$L - number\ of\ people\ employed$

$TFP - total\ factor\ of\ productivity$

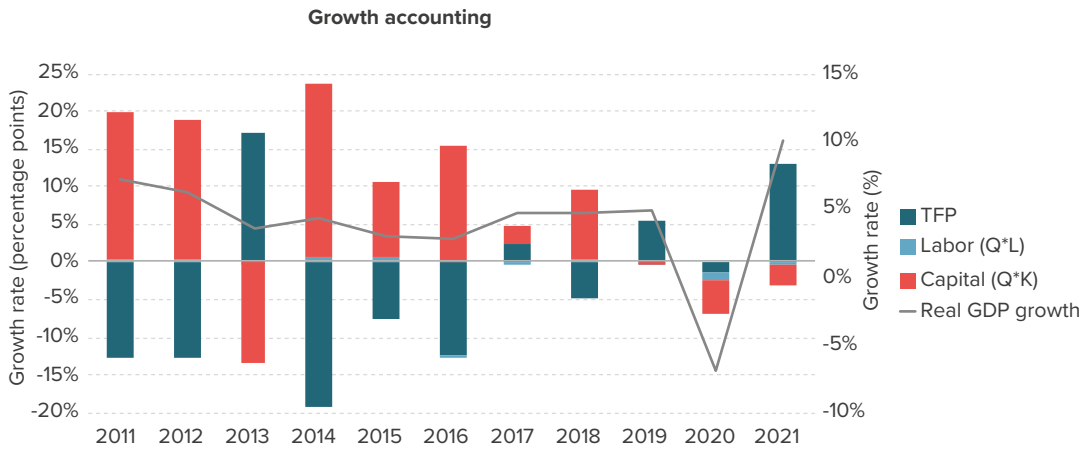
$\bar{\theta}_i = (Q_{i,t} + Q_{i,t-1})/2$

$\bar{\theta}_l = wage\ compensation\ to\ nominal\ GDP$

$\bar{\theta}_K = 1 - \bar{\theta}_l$

44 https://www.oecd.org/sdd/na/2666910.pdf

Figure A.2. Growth decomposition (capital is measured using GFCF)



Source: World Bank staff calculations.

Both methods use perpetual inventory method (PIM) for transforming investment into a capital input and measure capital using gross fixed capital formation. The results of this alternative method are largely consistent with the results from the initial growth accounting exercise, with relatively small contribution of labor in real GDP growth and fluctuation in TFP. The contribution of capital has been historically strong, however, in 2020-2021 it had negative contribution in real GDP growth explained by decline in gross fixed capital formation level during the pandemic years (Figure A.2).

As there is no consensus on the most reliable measure of capital (K), we tested four alternative specifications, following OECD's approach:

1. Gross fixed capital formation - $\log(K_t/K_{t-1})$

2. Net capital (defined as gross fixed capital formation minus consumption of fixed assets[45]) - $\log(Kt/K_{t-1})$

3. Consumption of fixed assets (capital) - $\log(K_t/K_{t-1})$

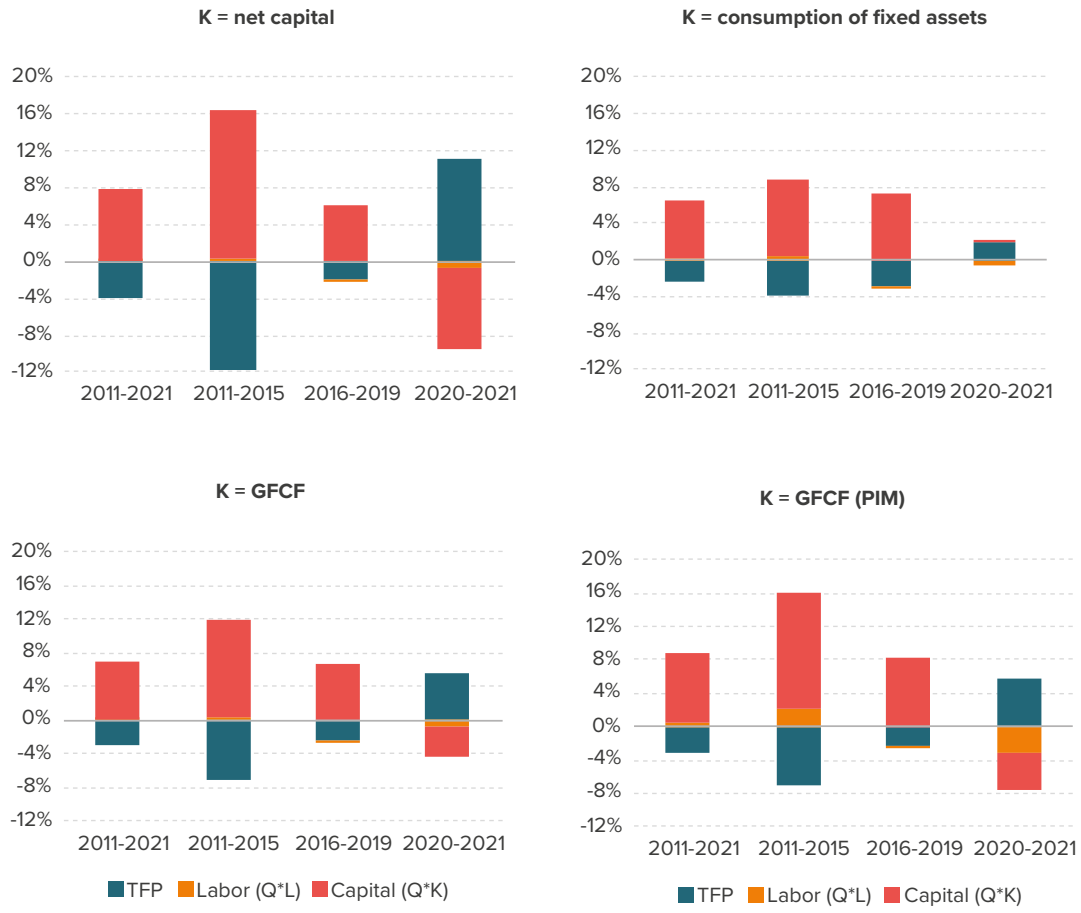
4. Capital stock calculated from GFCF and adjusted using PIM

In addition to that, we also allowed for time varying shares of capital and labor ($\bar{\theta}_i$) which is different from our initial approach. While these shares do not fluctuate significantly over time, they are allowed to change from year to year.

45 https://www.cso.ie/en/media/csoie/methods/estimatesofthecapitalstockoffixedassets/Estimates_of_the_Capital_Stock_of_Fixed_Assets_Methodology.pdf

Overall, the findings from these two different approaches are consistent. They confirm that in 2011-2021 capital explained a large share of real GDP growth, while TFP was the main driver of growth in 2020-2021. The contribution of labor has been negligible and declining since 2014. It should also be noted that the results are similar when using alternative measures of K (Figure A.3). They indicate that in 2016-2019 growth was driven by capital, while TFP component was negative. Decomposition based on the first methodology (Figure A.1) on the other hand indicates that in 2016-2019 both factors (K and TFP) supported growth, although TFP had a larger contribution. The differences in these results can be attributed to variances in methodologies and their approaches for calculating the contribution of TFP in growth.

Figure A.3. Growth decomposition under alternative measures of capital



Source: World Bank staff calculations.

Annex 2. Results from consultations with stakeholders

This report has been informed by two rounds of consultations, in January 2023 (scoping) and May 2023 (following Concept Note review). Discussions with all key Ministries were conducted to validate findings and inform the discussion on areas of progress. In addition, as advised by SCD guidance, consultations were held as well with private sector representatives, civil society organizations and think tanks, and development partners. These were structured around three different roundtables, and served to validate the findings of the report, and get an understanding of the top constraints according to each set of stakeholders.

In each of the three roundtables with non-government stakeholders (private sector representatives, civil society organizations, and DPs), participants were asked to mark the top two policy objectives among the nine presented, while offering the possibility as well to convey and add a new policy objective that they were considering missing from the list. Summary results are presented in Table A.1, while further detail on the discussions is included below.

Consultations with the private sector listed the need to improve education outcomes and skills (#2) as a top priority. There was also a discussion about the need to revamp the TVET system. Investing in energy efficiency (#7) was also signaled by many as a top priority. Reducing labor market frictions and increasing participation (#1) came up third in number of votes, with the related aspect of outmigration to Europe being one of the key topics raised during the discussion. Participants also raised that an overall good business environment is impacted by uncertainty due to lack of transparency in the judiciary sector.

Participants from the civil society and think tanks also voted quality education (#2) as the top priority, while making the nuance that the issue was not only about modernizing teaching methods, but rather the need to improve the knowledge and basic skills of the teachers, as well as to provide incentives to enhance performance. Disparities in access to education and other social services, in particular in remote areas and among minorities, were also highlighted. Another policy area that came out prominently had to do with access to land and environmental sustainability (#6). It was highlighted that access to land remains an issue, as people in rural areas depend on pensions and social allowances and cannot always afford to pay the fees to register land. Related to this area, water was also highlighted as critical, as both access to clean water and water management in rural areas remains an issue. Similar to the consultation with private sector representatives, issues relating to independence of the judiciary, uneven law enforcement, and informal governance (particularly in rural areas) were also voiced; while policy objective #10 on enforcement of laws and regulation was not in the initial set for consultations, it was later included as the issue was raised consistently by stakeholders.

Development partners voted access to finance, digitalization, and innovation (#4) as the top priority, while investing in energy efficiency (#7) and reducing labor market frictions and increasing participation (#1) were tied in second place. Other issues that were discussed included the need to ensure provision of basic services such as water supply and sanitation as well as on solid waste, to ensure adequate municipal finance and governance as well as citizen participation in investments at the subnational level, to try balance the urban-rural divide, and to build community resilience against shocks.

TABLE A.1. SUMMARY RESULTS OF THE PRIORITIZATION OF POLICY OBJECTIVES BY PARTICIPANTS IN ROUNDTABLES WITH STAKEHOLDERS

Policy objective	Private sector	Civil Society	DPs
#2. Modernize education to provide skills	6	5	1
#7. Invest in energy efficiency (in transport, industry, and households)	5	1	3
#4. Facilitate access to finance, digitalization, and innovation	3		6
#6. Improve land use as well as adaptation to climate change	2	3	2
#1. Reduce labor market frictions and increase participation	4		3
#5. Enhance connectivity and logistics to foster trade	3	2	1
#9. Strengthen risk management and safety nets	1		2
#8. Support renewable energy development	1	2	
#3. Strengthen primary care service provision and healthcare spending efficiency			1
Additional objectives highlighted by participants during consultations			
Good governance and judiciary system (incorporated as #10)	3	3	1
Spatial planning, democratic local governance and equality	1		1
Dependence on Russian market	1		
Efficiency in government spending (e.g., subsidies to tourism, agriculture etc.)	1		
Lack of information to find opportunities in regions		1	
Lack of cooperation between private and public sectors		1	
Gender equality			1

Source: World Bank staff elaboration, based on consultations with stakeholders held during May 2023.

Annex 3. Benchmarking exercise

To evaluate Georgia's performance across a wide range of indicators, a benchmarking exercise was undertaken, comparing Georgia with countries in other reference groups. The **Structural peers** group includes Albania, Armenia, Bosnia and Herzegovina, Kosovo, North Macedonia, and Serbia. **Aspirational peers** are Croatia, Estonia, and Moldova. In addition, where available, the upper-middle-income country (UMIC) average is also provided for comparison.

For development indicators, which are not published annually, data for the latest available year was used. For macro-financial indicators the average value of past 5-6 years was calculated first for each country, and then the group median was used to minimize the effects of significant outliers or unusual fluctuations.

After calculating the median of the reference group (structural peers or aspirational peers), normalized gap with respect to the median was found for each country, including for Georgia, using the following normalization:

$$\gamma_i^s = 100 * \frac{v_{GEO} - m_i^s}{m_i^s}$$

where v_{GEO} is the value of the indicator i for Georgia and m_i^s is the median value of indicator i across the reference group s. Using the normalized values countries, including Georgia, were ranked.

Next, the 33rd and 66th percentiles were calculated for the group using the normalized gaps for each country and indicator. If higher value of an indicator is preferred (for example, employment to population ratio), and Georgia's normalized value exceeded 66th percentile of the group, then Georgia's relative standing was evaluated positively, the indicator was marked as having a "low" risk and was colored in green. However, if Georgia's value was below 33rd percentile, its performance was relatively worse compared to the group and the indicator was marked as having "high" risk in red. For indicators where lower values are preferred (e.g. days required to start a business), the opposite approach was adopted: Georgia's indicators which fell below the 33rd percentile were marked in green, while the indicators above 66th percentile were highlighted in red. If the normalized value fell between 33rd and 66th percentiles, then the indicator for Georgia was marked as having a "medium" risk in color yellow.

Results are presented in the following tables, and the data source for each indicator is provided in the last column.

BENCHMARKING OF INDICATORS ASSOCIATED TO POLICY OBJECTIVES

Variables	Performance compared to Structural Peers	Performance compared to Aspirational Peers	Georgia (latest value)	Georgia (2015 or closest year)	UMI (latest value)	Structural peers (average)	Aspirational peers (average)	Source
1) Reduce labor market frictions affecting participation								
Labor force participation rate	Low	Low	58.9	46.2	64.3	51.9	51.35	WDI
Youth unemployment rate	Medium	High	28.3	36.5	17.45	32.26	16.45	WDI
Labor market index	Low	Medium	65.6			61	61	Global Competitiveness Index (WEF 2018)
2) Modernize education to provide skills								
School enrollment, preprimary (% gross)	Low	Low	95.24	94.48	77.94	53.5	85.2	WDI
Learning outcomes (Harmonized Learning Outcomes)	High	High						HLO database, WB
Learning adjusted years of schooling	Low	High	8.27	8.9		8.3	10.14	HCI
Quality of vocational training (1-7 scale, 7 best)	High	High	3.1			3.6	3.9	Global Competitiveness Index (WEF)
Skillset of graduates	High	High	3.4			3.7	3.9	Global Competitiveness Index (WEF)
Critical thinking in teaching	Medium	Medium	3.1			3.4	3.33	Global Competitiveness Index (WEF)
3) Strengthen primary care service provision and healthcare spending efficiency								
Out-of-pocket expenditure (% of current health expenditure)	High	High	46.77	57.32		47.9	23.7	WDI
Hospital beds (per 1,000 people)	High	High	2.89	2.89	3.88	3.89	5.30	WDI
Cause of death, by non-communicable diseases (% of total)	Low	High	93.34	92.46	85.207	93.56	91.06	WDI
4) Remove constraints to firm productivity (A2F, R&D, managerial, digital adopt.)								
Value of collateral needed for a loan (% of the loan amount)	Medium	Low	194.2	247.8		190.86	205.33	Global Financial Development, WB
Firms identifying access to finance as a major constraint (%)	High	High	22.4	19.9		21.77	14.7	Global Financial Development, WB
Researchers in R&D (per million people)	Medium	High	585.4	585.4		788.63	1791	WDI
Individuals using the Internet (% of population)	High	High	73	48	73.3	78.33	81.1	WDI

BENCHMARKING OF INDICATORS ASSOCIATED TO POLICY OBJECTIVES (CONTINUE)

Variables	Performance compared to Structural Peers	Performance compared to Aspirational Peers	Georgia (latest value)	Georgia (2015 or closest year)	UMI (latest value)	Structural peers (average)	Aspirational peers (average)	Source
5) Enhance connectivity and logistics to foster trade								
Logistics performance index	High	High	2.44	2.51		2.72	2.95	WDI
Infrastructure quality index	Medium	High	67.6			57.7	73.4	WEF
Average time to clear customs	High	High	2.5	4	6.37	2.24	2.06	WDI
6) Improve land use as well as adaptation to climate change (agriculture, water, land reform)								
Cereal yield (kg per hectare)	High	High	2749.3	1959	4543.63	3977	5154	WDI
Water productivity, total (constant 2015 US$ GDP per cubic meter of total freshwater withdrawal)	Medium	High	10	9.2		17.4	40	Global Financial Development, WB
Agriculture value added per worker	High	High	1881.6	1519.47	6041.3	6233.22	16610	WDI
7) Invest in energy efficiency (in transport, industry, and households)								
CO2 intensity (kg per kg of oil equivalent energy use)	Low	Low	1.93	1.93	2.85	2.4	2.44	WDI
Methane emissions	High	High	5190	5510		4544	2710	WDI
Air quality index	Low	High	21	20.1		23.3	15.65	World Air Quality Report
8) Support renewable energy development								
Electricity production from renewable sources, excluding hydroelectric (% of total)	Medium	High	0	0	4.45	0.43	8.14	WDI
Renewable energy consumption (% of total final energy consumption)	Medium	High	25.22	28.15		25.24	28.3	WDI
9) Strengthen fiscal risk management and safety nets (SOEs, social assistance, DRM)								
Macroeconomic stability	High	High	74.4			74	87.8	WEF
Coverage of social safety net programs in poorest quintile (% of population)	Low	Low	63.55	64.26		30.95	25.64	WDI
Natural disaster risk index	High	High	3.79	6.64		2.66	2.66	Reliefweb
10) Enhance rule of law and enforcement of policies								
Rule of law index	Low	Medium	0.61			0.53	0.64	World Justice Project
Rule of law index in Bertelsmann Transformation Index	Medium	High	5.8	6.5		5.84	7.4	BTI project

Source: World Bank staff elaboration, based on consultations with stakeholders held during May 2023.

GEORGIA'S INITIAL BENCHMARKING EXERCISE

Variables	Performance compared to Structural Peers	Performance compared to Aspirational Peers	Georgia (latest value)	Georgia (2015 or closest year)	UMI (latest value)	Structural peers (average)	Aspirational peers (average)	Source
Shared Prosperity								
Poverty headcount ratio at $2.15 a day (2017 PPP, % of popul.)	High	High	4.8	4.9	1.5	1.1	0.1	WDI
Gini index	High	High	35.9	36.5		31.7	28.5	WDI
Income share held by bottom decile	High	High	2.6	2.6		3.1	3.43	WDI
Employment to population ratio, (ages 15+)	Low	Low	52.65	57	61.33	44	48	WDI
Labor force, female (% of total)	Low	High	46.25	46.2	43.53	42.3	46.9	WDI
Human Capital								
Human development index	Low	High	0.802	0.79		0.78	0.84	UNDP
Human capital index	High	High	0.57	0.54		0.6	0.69	HCI
Share of secondary schooling attained (% of popul. ages 25+)	Low	Low	92.17	92.1		75.7	81.4	WDI
Gross capital formation (% GDP)	Medium	Low	21.94	26	35.26	26.89	26.47	WDI
Male to female ratio at birth	Low	High	1.069	1.075	1.08	1.077	1.061	WDI
HCI by sex (female)	Medium	High	0.61	0.64		0.61	0.72	WB, Gender data
Proportion of seats held by women in national parliaments (%)	High	High	19	11		35.4	32.33	WDI
IDPs, total displaced by conflict and violence (% of popul.)	High	High	8.2	6.4		1.7	0.05	WDI
Refugee population by country or territory of origin (% of popul.)	Low	High	0.26	0.17		0.44	0.2	WDI
Macro and Fiscal Statistics								
Real GDP growth (annual %)	Low	Medium	10.4	3		6.2	10.7	IMF
Government revenue excluding grants (% of GDP)	Medium	High	26.4	27.6	35.7	31.3	33.7	WDI
Total investment (% of GDP)	Low	Low	21.95	26.3		25.4	26.3	IMF
General government total expenditure (% of GDP)	**lower than 33%**	**lower than 33%**	31.44	27.5		35.46	41.7	IMF

GEORGIA'S INITIAL BENCHMARKING EXERCISE (CONTINUE)

Variables	Performance compared to Structural Peers	Performance compared to Aspirational Peers	Georgia (latest value)	Georgia (2015 or closest year)	UMI (latest value)	Structural peers (average)	Aspirational peers (average)	Source
Broad money growth (annual %)	**higher than 66%**	**higher than 66%**	16.7	17.3		8.9	6	WDI
Agriculture value added (% of GDP)	High	Medium	6.12	7.8	6.73	9.3	5.21	WDI
Rural population (% of total)	Medium	Medium	40.13	43	31.6	41.7	43.23	WDI
Tax revenue (% of GDP)	Low	Low	23.1	22.8	10.8	20.3	20.1	WDI
Resource rent as % of GDP	Low	Medium	0.63	0.5	3.22	1.2	0.69	WDI
Time to prepare and pay taxes (hours)	Medium	High	216	362		237.6	146	WDI
Central government debt as % of GDP	Low	Medium	40.4	36.7		56.8	42.1	WDI
External Sector								
Foreign direct investment, net inflows (% of GDP)	Low	Low	7.8	11.6	1.7	5.7	6.8	WDI
Import of intermediate goods (share of imports)	Medium	High	31.1	31.06		27.8	19.4	WITS
Export of intermediate goods (share of exports)	High	High	14.34	16.38		27.8	22.5	WITS
Value of trade as % GDP	Medium	Medium	101.7	99	48.57	103.6	117.7	WDI
Economic complexity rank	Medium	High	0.06	0.02		0.12	0.3	OECD
Merchandize trade as % of GDP	Medium	High	76.55	63.6	42.5	88.11	94.6	WDI
Tourism receipts to total exports	**higher than 66%**	**higher than 66%**	37.2	33.5		22.3	20.8	WDI
Net ODA received, % of GNI	**higher than 66%**	**higher than 66%**	2.95	3.1	0.06	1.8	2.7	WDI
Remittance inflows to GDP (%)	**higher than 66%**	**higher than 66%**	14.14	10.04		10.15	8.09	Knomad
International tourism, number of arrivals (% of popul.)	Low	High	141	141		47	196	WDI
Financial Inclusion								
Borrowed money from a financial institution (% ages 15+)	Low	High	24.2	17.3		20.5	26.6	GFI
Received government transfers (% ages 15+)	**higher than 66%**	Medium	20.5	19.2		24.4	25.7	GFI
Saved at a financial institution (% ages 15+)	High	High	7.8	4.6		13	31.6	GFI

GEORGIA'S INITIAL BENCHMARKING EXERCISE (CONTINUE)

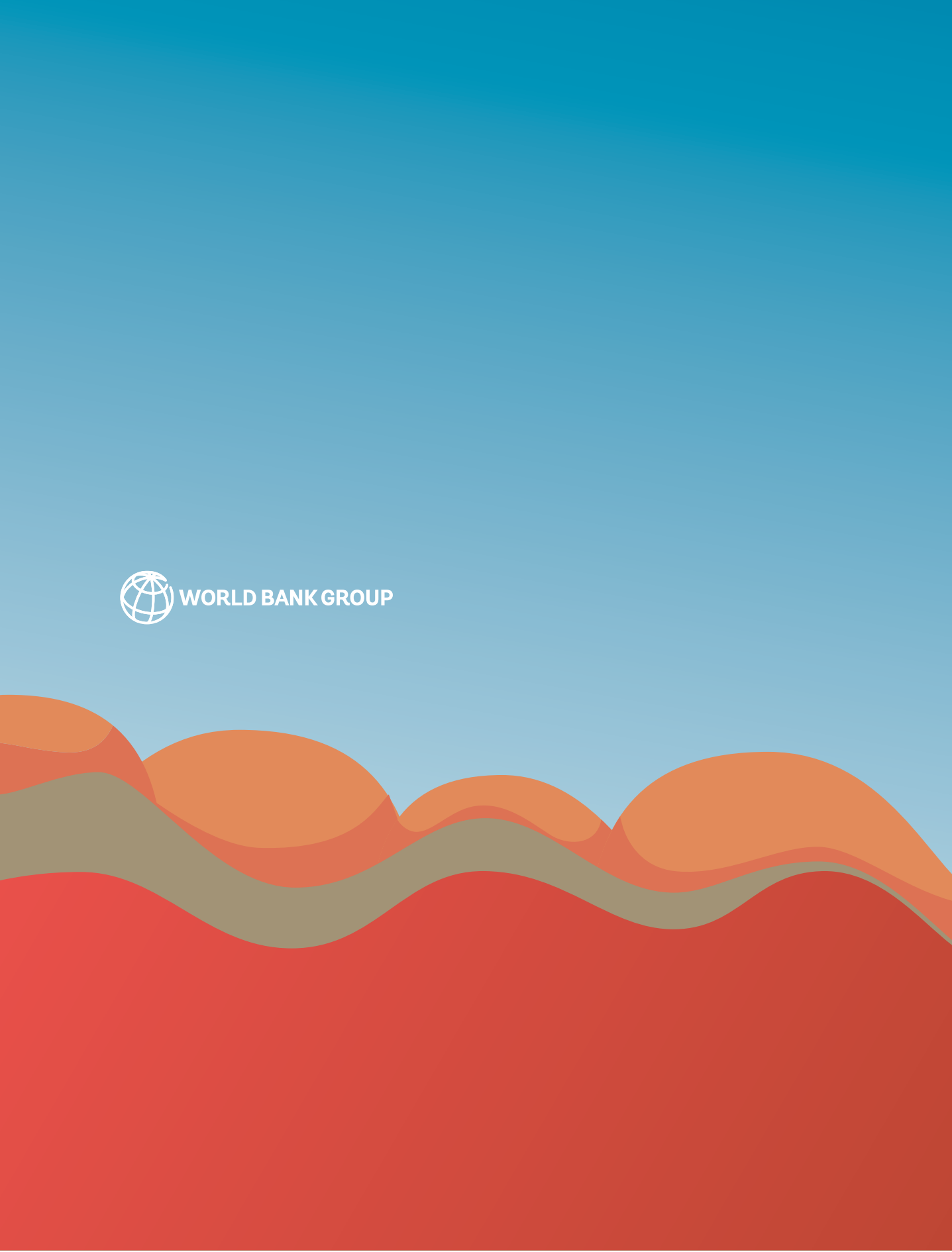
Variables	Performance compared to Structural Peers	Performance compared to Aspirational Peers	Georgia (latest value)	Georgia (2015 or closest year)	UMI (latest value)	Structural peers (average)	Aspirational peers (average)	Source
Withdrew money from a financial institution account (% ages 15+)	Medium	High	27.8			26.7	51.9	GFI
Commercial bank branches (per 100,000 adults)	Low	Low	31.7	32.2		23.1	21.8	WDI
Adults with account at a financial institution (% of popul. 15+)	Medium	High	70.5	39.67		68.6	85.14	WDI
Business Environment								
Days required to start a business	Low	Low	1	2	19	19.2	9	WDI
Getting credit (country rank)	Low	Low	8	8		6.8	6	Index Mundi
Cost of business start-up (% of GNI per capita)	Low	Low	2.1	3.4	12.9	7	3.73	WDI
Days to obtain an import license	Low	Low	3.5	7.3	19.4	8.7	11.5	Enterprise Surveys
Firms competing against unregistered firms	High	High	22.4	56.3	46.8	39.7	35.45	WDI
Domestic credit to private sector (% of GDP)	Low	Low	67.7	49.1	125.8	48.7	45.9	WDI
Environmental Sustainability								
Climate risk index	High	Low	93.17	95.83		100.3	89.6	German Watch
Environmental protection index	High	High	39.1	55.69		46.6	54.7	EPI
Governance and institutions								
Global competitiveness index, institutions	Low	Low	61			51.14	57.8	WEF
Control of corruption, -2.5 to 2.5 (best)	Low	Low	0.688	0.73		-0.37	0.38	WGI
Government effectiveness, -2.5 to 2.5 (best)	Low	Medium	0.65	0.3		-0.26	0.52	WGI
Citizen engagement in rulemaking score	Medium	High	3	3		3.64	5.3	WB
Agriculture								
Employment in agriculture (% of total employment)	High	High	38	44		21.6	10	WDI

GEORGIA'S INITIAL BENCHMARKING EXERCISE (CONTINUE)

Variables	Performance compared to Structural Peers	Performance compared to Aspirational Peers	Georgia (latest value)	Georgia (2015 or closest year)	UMI (latest value)	Structural peers (average)	Aspirational peers (average)	Source
Index of Agricultural Total Factor Productivity (TFP), 2015=100	Low	Low	118.4	100		108.9	98.1	USDA
Agriculture value added per worker (in contant 2015 USD dollars)	High	High	1881.6	1519.47	6041.3	6233.22	16610	WDI
Infrastructure and connectivity								
Quality of port infrastructure, 1-7	Low	High	3.8			2.86	4.2	Global Economy
Market concentration index (HHI of exports value destination)	Low	Low	0.06	0.05		0.136	0.07	WITS
Global competitiveness index, infrastructure	Medium	High	67.6			57.7	73.4	WEF
Digital development								
Fixed broadband subscriptions (per 100 ppl)	Low	Low	24.37	16.86	26.12	20.7	24.75	WDI
Education								
Standardized test scores (PISA score, mathematics)(country rank)	High	High	66	57		59.6	34.3	FactsMaps
Standardized test scores (PISA score, reading)(country rank)	High	High	70	62		61.6	28	FactsMaps
Research and development expenditure (% of GDP)	Medium	High	0.3	0.3		0.43	1.089	WDI
Government expenditure on education, total (% of GDP)	Low	High	3.85	3.2	4.43	3.17	5.85	WDI
Gross enrollment ratio, tertiary, both sexes (% gross)	Low	High	0.72	0.52		0.61	0.78	WB, Gender data
Gross enrollment ratio, secondary, both sexes (%)	Low	High	1.01	0.99		0.883	1.08	WDI
Gross enrollment ratio, primary, both sexes (% gross)	Low	Medium	1	1.02		0.96	0.99	WDI

GEORGIA'S INITIAL BENCHMARKING EXERCISE (CONTINUE)

Variables	Performance compared to Structural Peers	Performance compared to Aspirational Peers	Georgia (latest value)	Georgia (2015 or closest year)	UMI (latest value)	Structural peers (average)	Aspirational peers (average)	Source
Labor force								
LF participation rate, among youth aged 15-24 (% of popul. ages 15+)	Low	Low	34.46	43	44.88	33.23	30.75	WDI
Unemployment rate, total (% of popul. ages 15+)	Low	High	10.66	16.5	6.76	15.18	6.32	WDI
Life expectancy at birth, total (years)	High	High	74	73		75.5	76	WDI
Health								
Mortality rate, under-5 (per 1,000 live births)	High	High	9	11		7.8	7.3	WDI
Prevalence of obesity among adult	High	Medium	21.7	21.7		20.74	21.5	WHO
People using safely managed sanitation services (% of popul.)	Medium	High	34	37		37.4	80.5	WDI
Health expenditure, public (% of GDP)	Medium	Low	6.66	7.42	5.84	8.6	6.69	WDI
Environment and emissions								
CO2 emissions (metric tons per capita)	Low	Low	2.7	2.5		4.16	5.03	WDI
Annual freshwater withdrawals, total	Medium	High	1.3	1.6		2.14	1.03	WDI
Water productivity	Low	High	13	9		16	36.33	WDI
Freshwater withdrawal (% of available freshwater resources)	Low	Low	5.12	5.27		19.6	8.28	WDI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